

TA-F333ESR/F730ES

SERVICE MANUAL

AEP Model
UK Model
TA-F730ES

E Model
TA-F333ESR



photo : TA-F730ES

SPECIFICATIONS

Item	Condition		Data
Continuous RMS power output (both channels driven simultaneously)	4 ohms, 20 Hz-20 kHz THD 0.008%	UK, E model	145 W + 145 W (THD 0.008%) (DIN: 185 W + 185 W)
	6 ohms, 20 Hz-20 kHz THD 0.006%	UK, E model	125 W + 125 W (DIN: 150 W + 150 W)
		AEP model	120 W + 120 W (DIN: 140 W + 140 W)
	8 ohms, 20 Hz-20 kHz THD 0.004%	UK, E model	110 W + 110 W (DIN: 130 W + 130 W)
		AEP model	105 W + 105 W (DIN: 115 W + 115 W)
Power band width (IHF)	8 ohms, THD 0.02%		10 Hz - 100 kHz at 50 W
Dynamic headroom ('78 IHF)	4 ohms		3 dB
	8 ohms		2 dB
Total harmonic distortion	8 ohms, at 10 watt output		0.002%
Intermodulation (IM) distortion 60 Hz: 7 kHz = 4:1	4 ohm, at rated output		0.008%
	6 ohms at rated output		0.006%
	8 ohms at rated output		0.004%
Damping factor	8 ohms, 1 kHz		100
Residual noise	network A		less than 115 µV
Frequency response	PHONO MM		RIAA equalization curve ±0.2 dB
	TUNER, CD, TAPE 1, 2, 3, DIRECT IN		2 Hz - 200 kHz ± 0.3 dB
Input sensitivity	PHONO	MC	
		3 ohms	0.17 mV, 100 ohms
		40 ohms	0.17 mV, 1 kohm
	MM	2.5 mV, 50 kohms	
TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN			150 mV, 50 kohms

—Continued on page 2—

INTEGRATED STEREO AMPLIFIER
SONY®



MICROFILM

Item	Condition		Data
S/N (network)	PHONO	MC	68 dB 76 dB* (A)
	MM		80 dB 87 dB* (A)
78 (IHF)	TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN		84 dB 105 dB (A)
Output voltage impedance	REC OUT 1, 2, 3 ADAPTOR OUT		150 mV, 1 kohm PREOUT 1.0 V, 100 ohms
	HEADPHONES		25 miliwatts (at 8 ohms) Accepts low and high impedance headphones.
Tone controls	BASS, at 100 Hz		+4 dB (turnover freq. 200 Hz) -5.5 dB
	TREBLE, at 10 kHz		+6 dB (turnover freq. 400 Hz) -7 dB
			+7 dB (freq. 3 kHz) -8 dB
			+4 dB (freq. 6 kHz) -5 dB
SUBSONIC filter			6 dB/octave attenuation below

General

System Preamplifier section: Low-noise high gain NFB type equalizer amplifier, passive type direct tone control
Power amplifier section: Pure-complementary SEPP power amplifier

Power requirements

AEP model : 220 V AC, 50 Hz
UK model: 240 V AC, 50 Hz
E model : 120 V, 220 V or 240 V AC adjustable, 50/60 Hz

Power consumption

AEP model : 260W
UK model : 800W
E model : 370W

AC outlet

AEP, UK model: 1 switched, 100watts max.
E model: 1 switched, 1 unswitched, 100 watts each

Dimensions

AEP, E model: Approx. 470 x 166 x 436 mm (w/h/d)
(18½ x 6½ x 17¼ inches)
UK model: Approx. 430 x 165 x 435 mm (w/h/d)
(18½ x 6½ x 17½ inches)

Weight

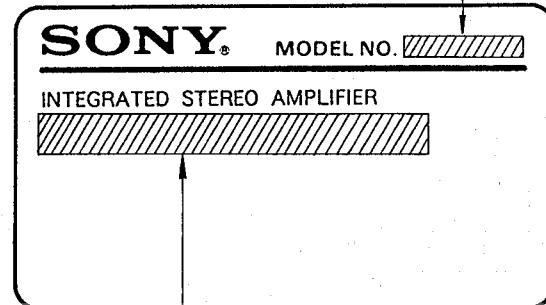
AEP, E model : Approx. 21.2 kg (46 lbs 12 oz) net
UK model : Approx. 19.9 kg (43 lbs 14 oz) net

MODEL IDENTIFICATION

— Specification Label —

AEP, UK model : TA-F730ES

E model : TA-F333ESR

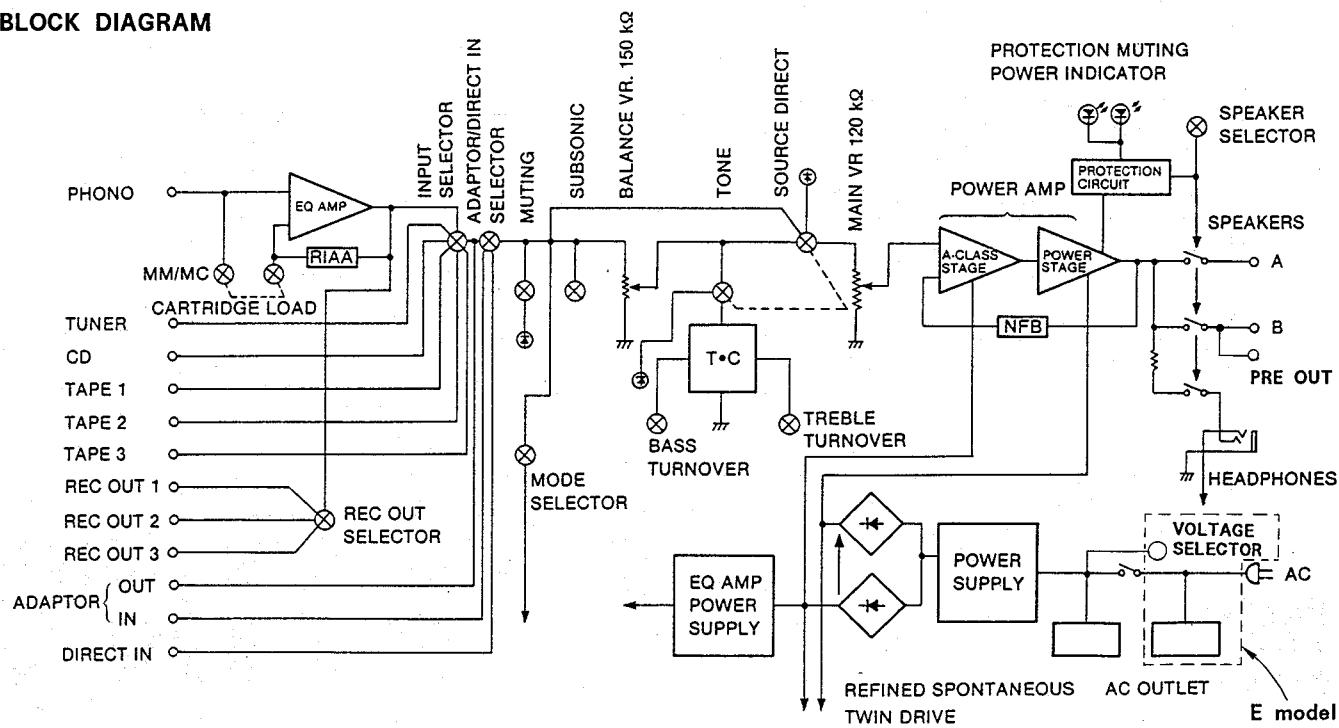


AEP model : AC220V~50/60Hz 260W

UK model : AC240V~50/60Hz 800W

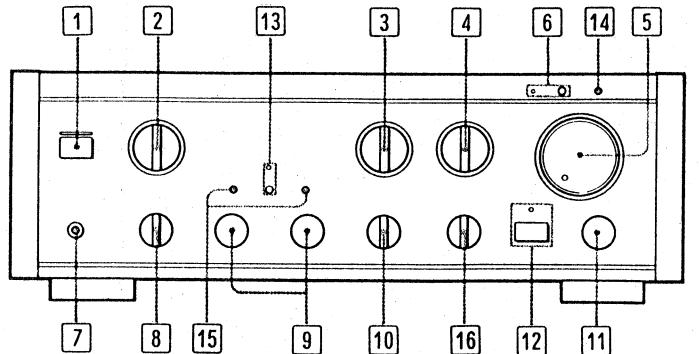
West Germany model : AC220V 50/60Hz

E model : AC120/220/240V~50/60Hz 370W

BLOCK DIAGRAM

SECTION 1 GENERAL

Function of Controls



1 POWER switch and power/standby indicator

Immediately after turning ON the power, the standby indicator lights in red as the built-in muting circuit activates.

When the amplifier stays in a stable operating condition, the indicator lights in green.

The indicator lights in red when the unit detects shorting of circuit of the speaker outputs or in case of short-circuit of the inputs of DC components.

In such a case, disconnect the power source and check the connected components and speaker systems.

2 SPEAKERS selector

Select speaker system A or B, or both.

To use power amplifier or active speaker system connected to the PRE OUT jacks, set the selector to B/PRE OUT

For headphone monitoring only, set the selector to OFF.

3 ADAPTOR/DIRECT IN switch

Set to NORMAL to select program source by INPUT SELECTOR. To listen to a program source processed through adapter (graphic equalizer, for example) connected to ADAPTOR jacks, set the selector to ADAPTOR.

To listen to a program source connected to DIRECT IN jacks, set it to DIRECT IN.

Note that selecting ADAPTOR has no effect upon the signals output through the REC OUT jacks.

4 INPUT SELECTOR

Selects the desired program source.

5 ATTENUATOR knob

Regulates the sound level.

6 MUTING switch and indicator

Generally, keep the switch released (OFF).

Depress the switch to reduce the sound level by 20 dB. (Output voltage becomes 1/10.)

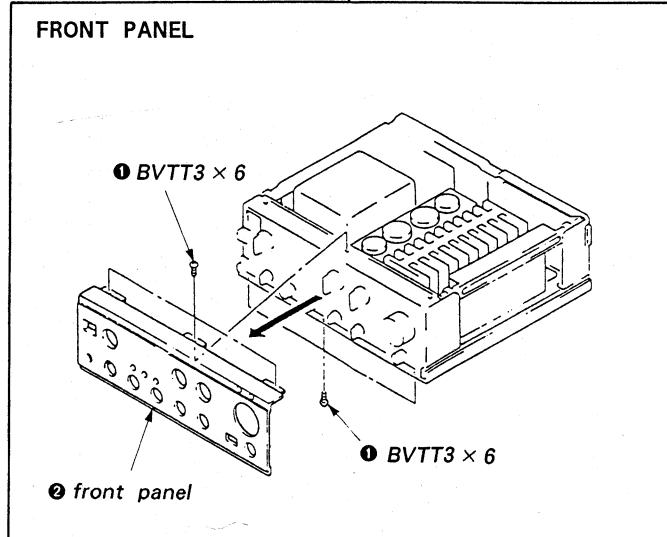
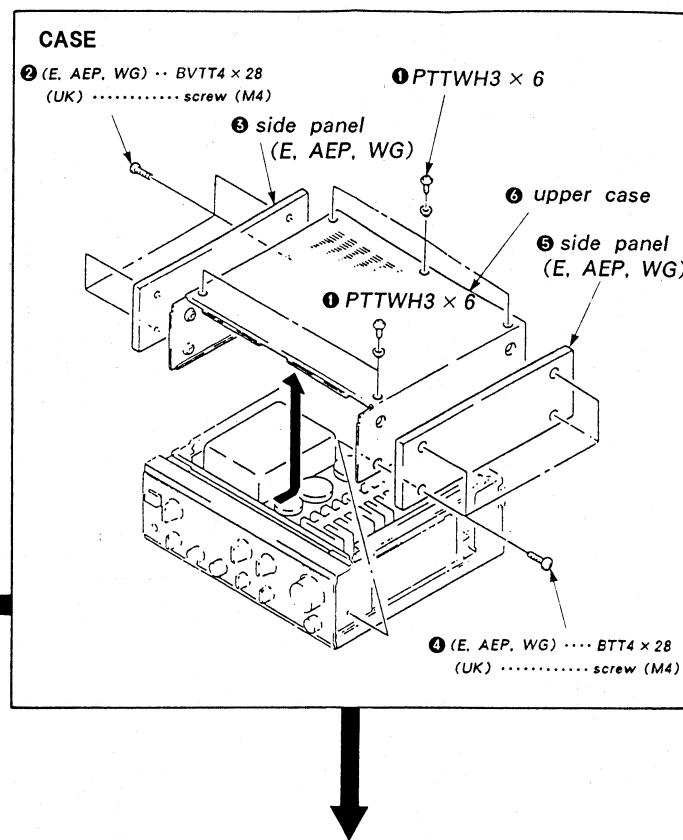
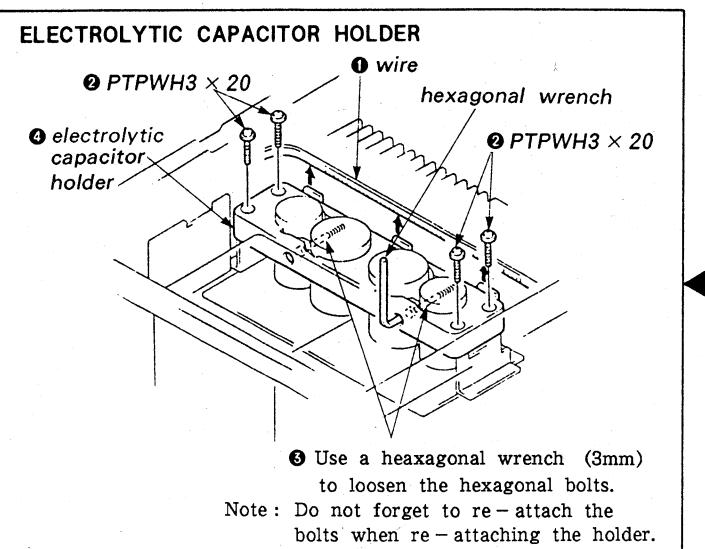
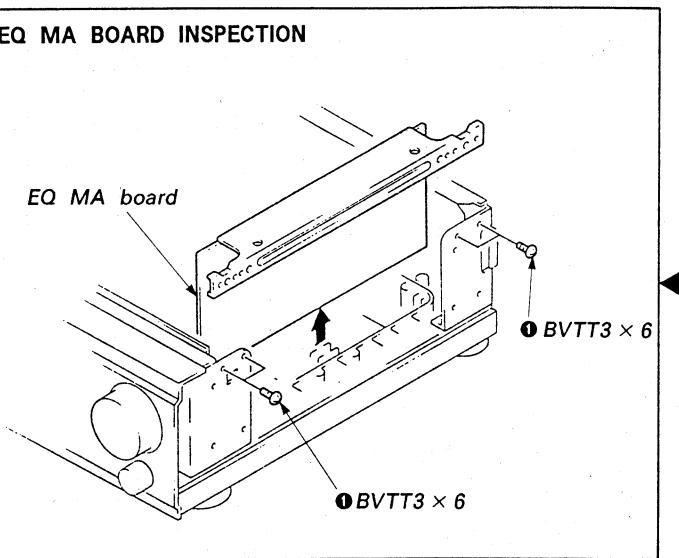
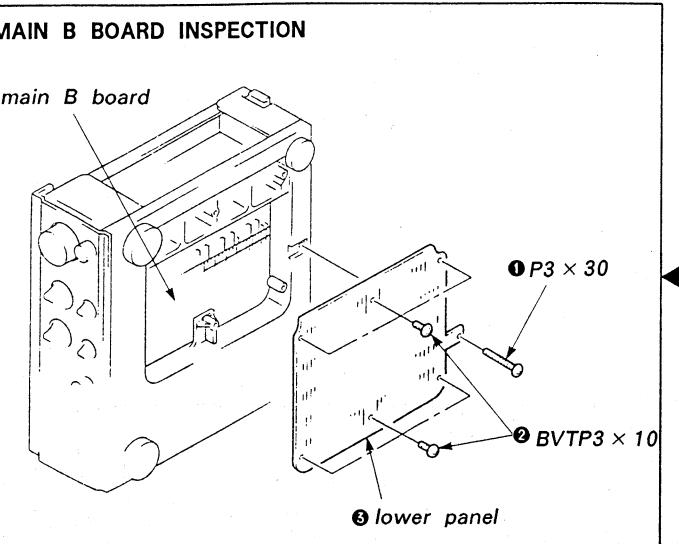
The selection of program source

Program source	INPUT SELECTOR	ADAPTOR/DIRECT IN switch
For listening to record program**	PHONO	NORMAL
For listening to FM or AM (MW or LW) program	TUNER	NORMAL
For listening to CD	CD	NORMAL
For listening to taped program connected to TAPE 1 input jacks	TAPE 1	NORMAL
For listening to taped program connected to TAPE 2 input jacks	TAPE 2	NORMAL
For listening to taped program connected to TAPE 3 input jacks	TAPE 3	NORMAL
For listening to program source connected to DIRECT IN jacks	—	DIRECT IN
For listening to program source processed through adaptor	Desired program source	ADAPTOR

** Set the CARTRIDGE LOAD selector according to the cartridge being used.

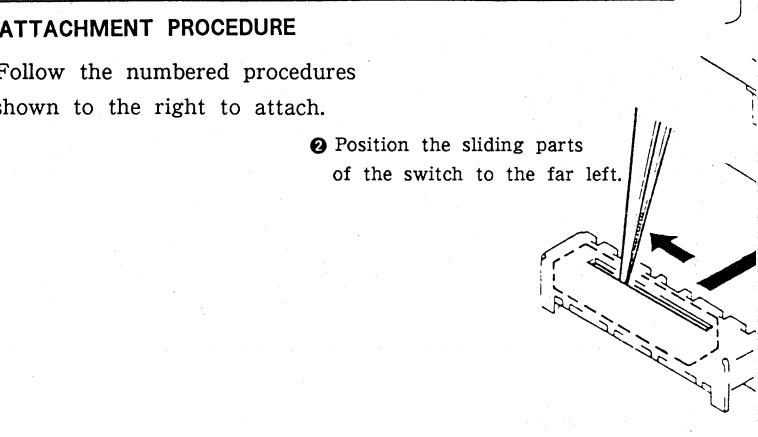
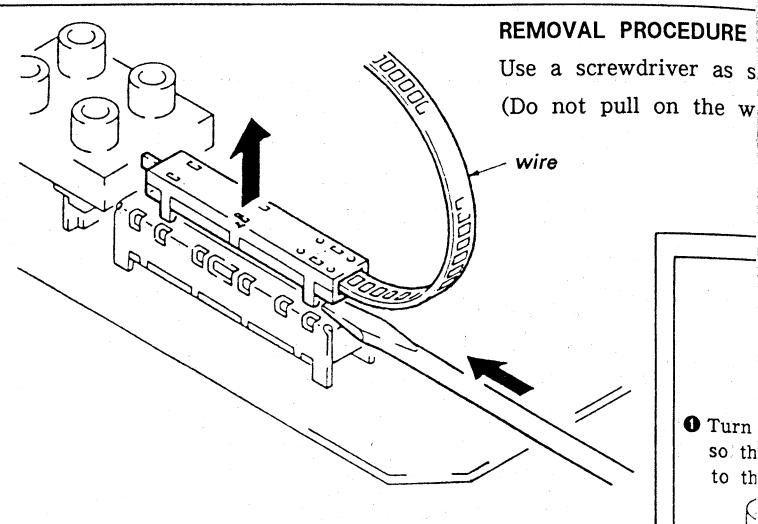
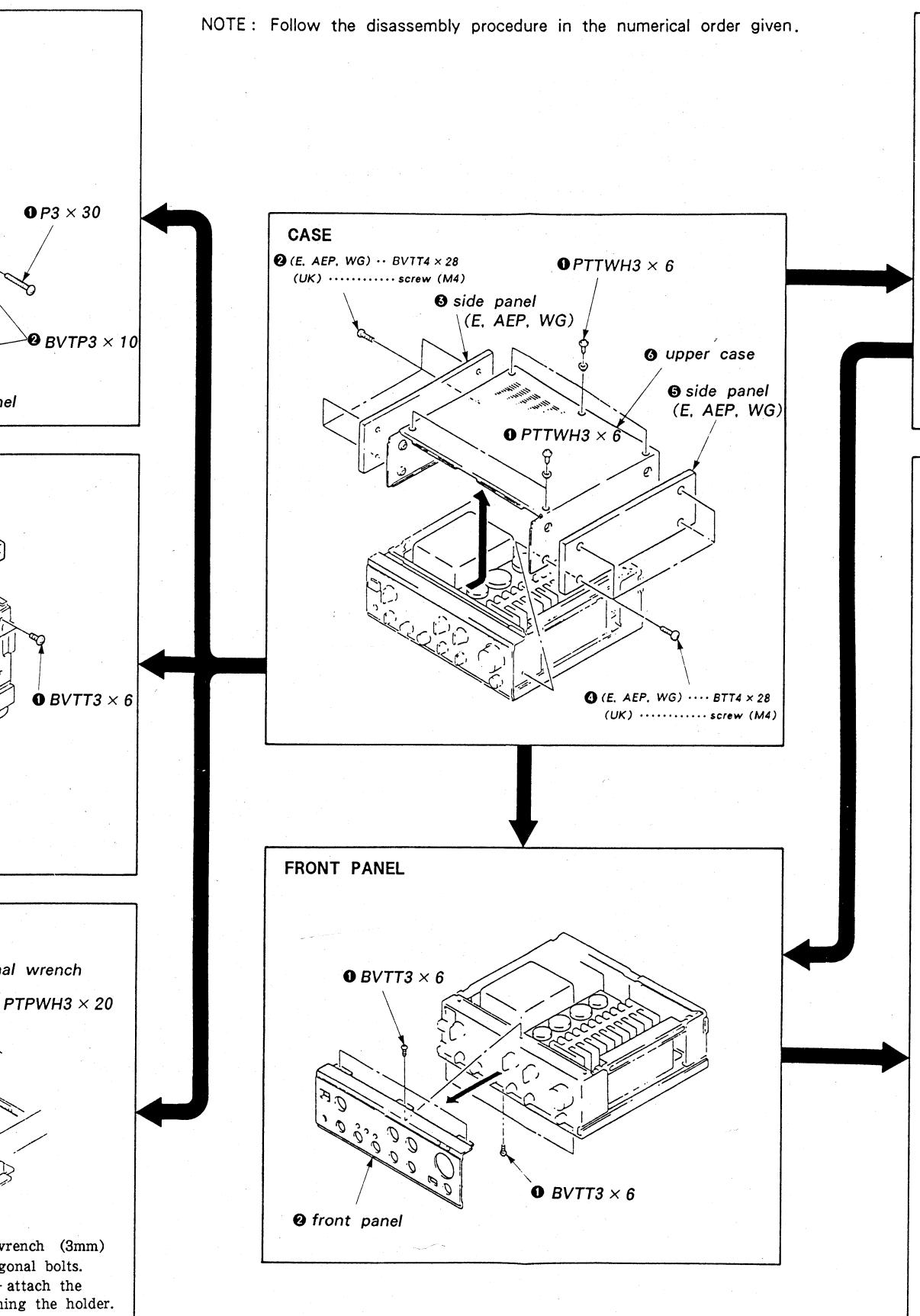
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.



SECTION 2
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.



SECTION 4

ELECTRICAL ADJUSTMENT

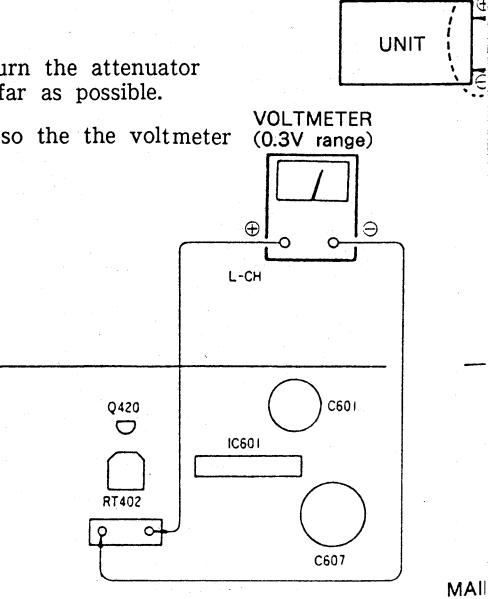
WIRING DIAG

OFFSET ADJUSTMENT

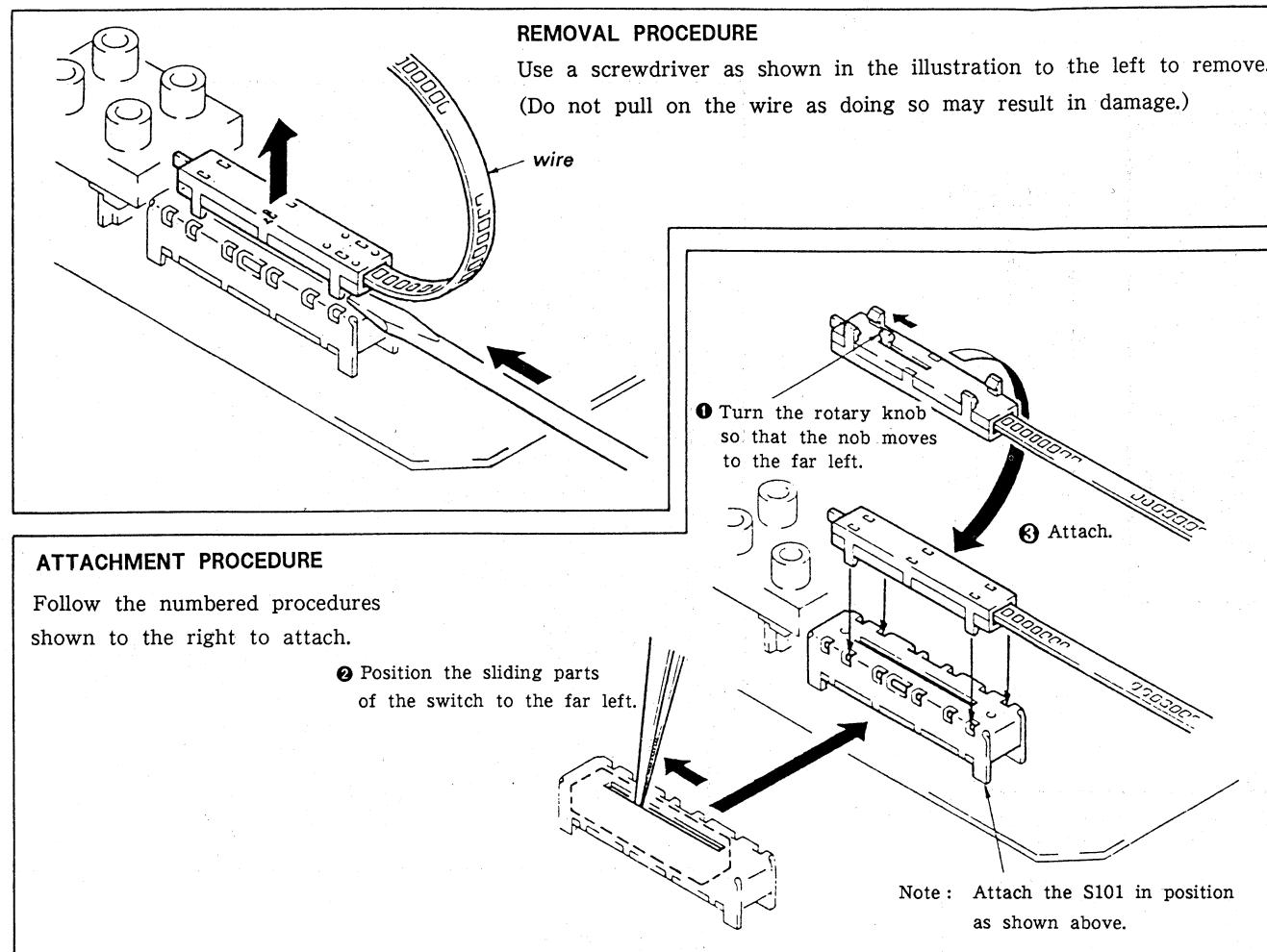
1. With no signal input, turn the attenuator counter - clockwise as far as possible.
2. Adjust RT401 and 451 on the main board so that the voltmeter reads 0V.

BIAS ADJUSTMENT

1. With no signal input, turn the attenuator counter - clockwise as far as possible.
2. Adjust RT402 and 452 so the voltmeter reads 15mV.



SECTION 3 REMOVAL SWITCH BLOCK



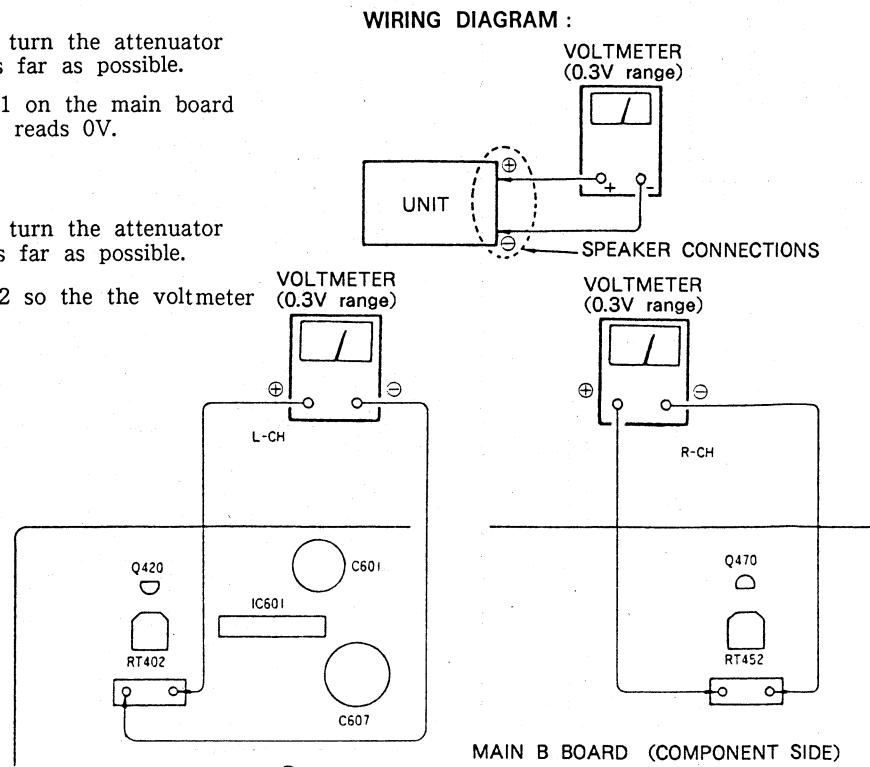
SECTION 4 ELECTRICAL ADJUSTMENTS

OFFSET ADJUSTMENT

1. With no signal input, turn the attenuator counter-clockwise as far as possible.
2. Adjust RT401 and 451 on the main board so that the voltmeter reads 0V.

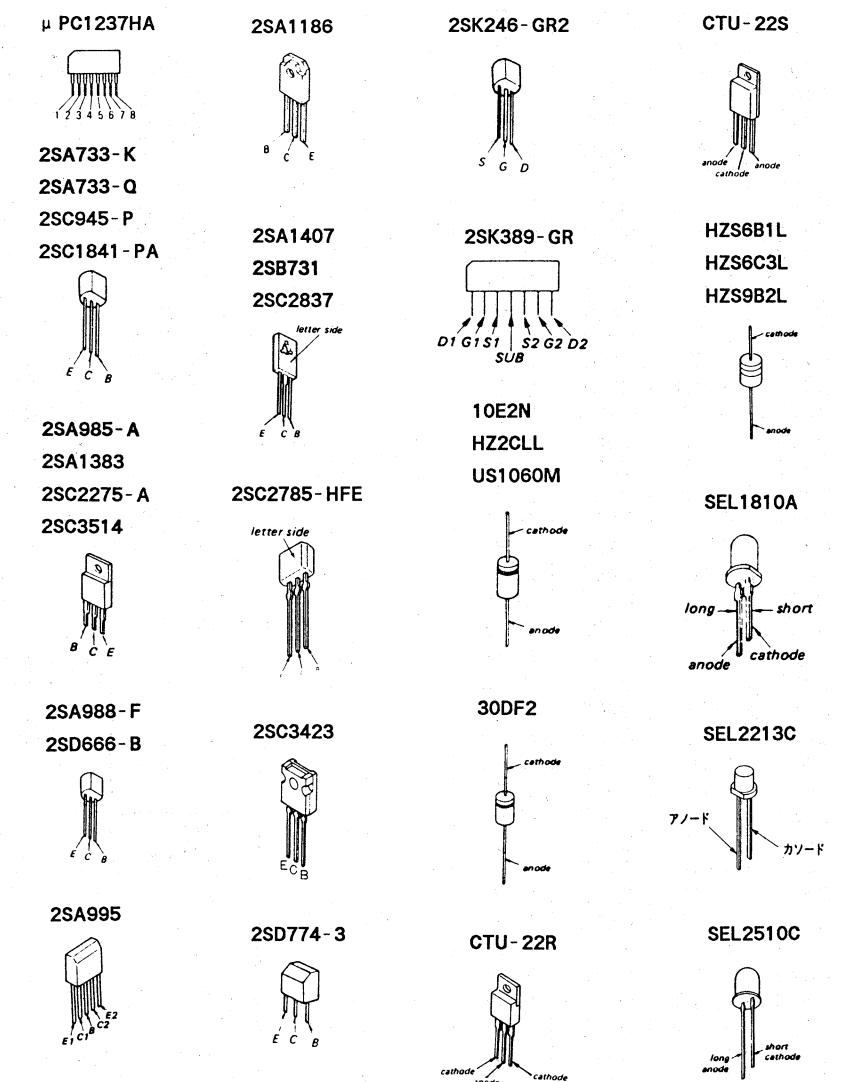
BIAS ADJUSTMENT

1. With no signal input, turn the attenuator counter-clockwise as far as possible.
2. Adjust RT402 and 452 so the voltmeter reads 15mV.

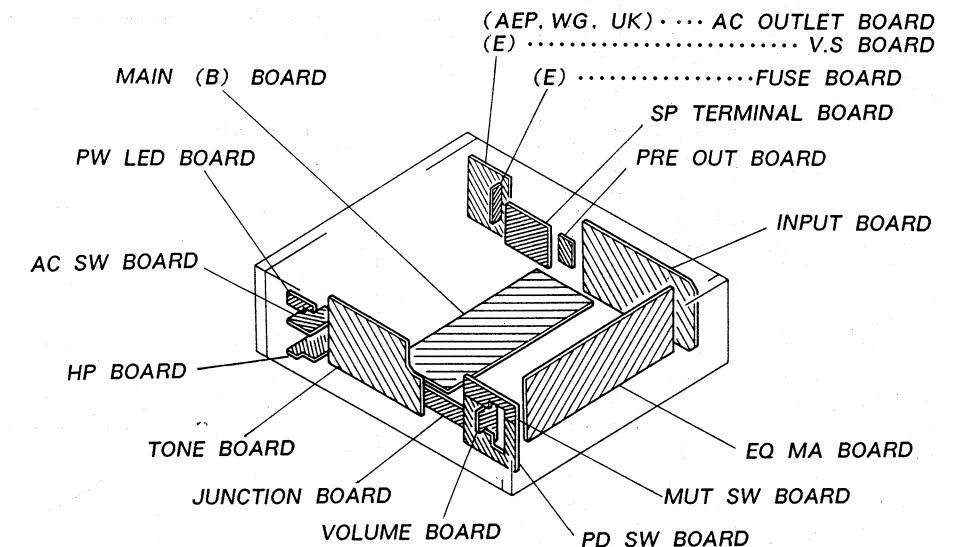


SECTION 5 DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS



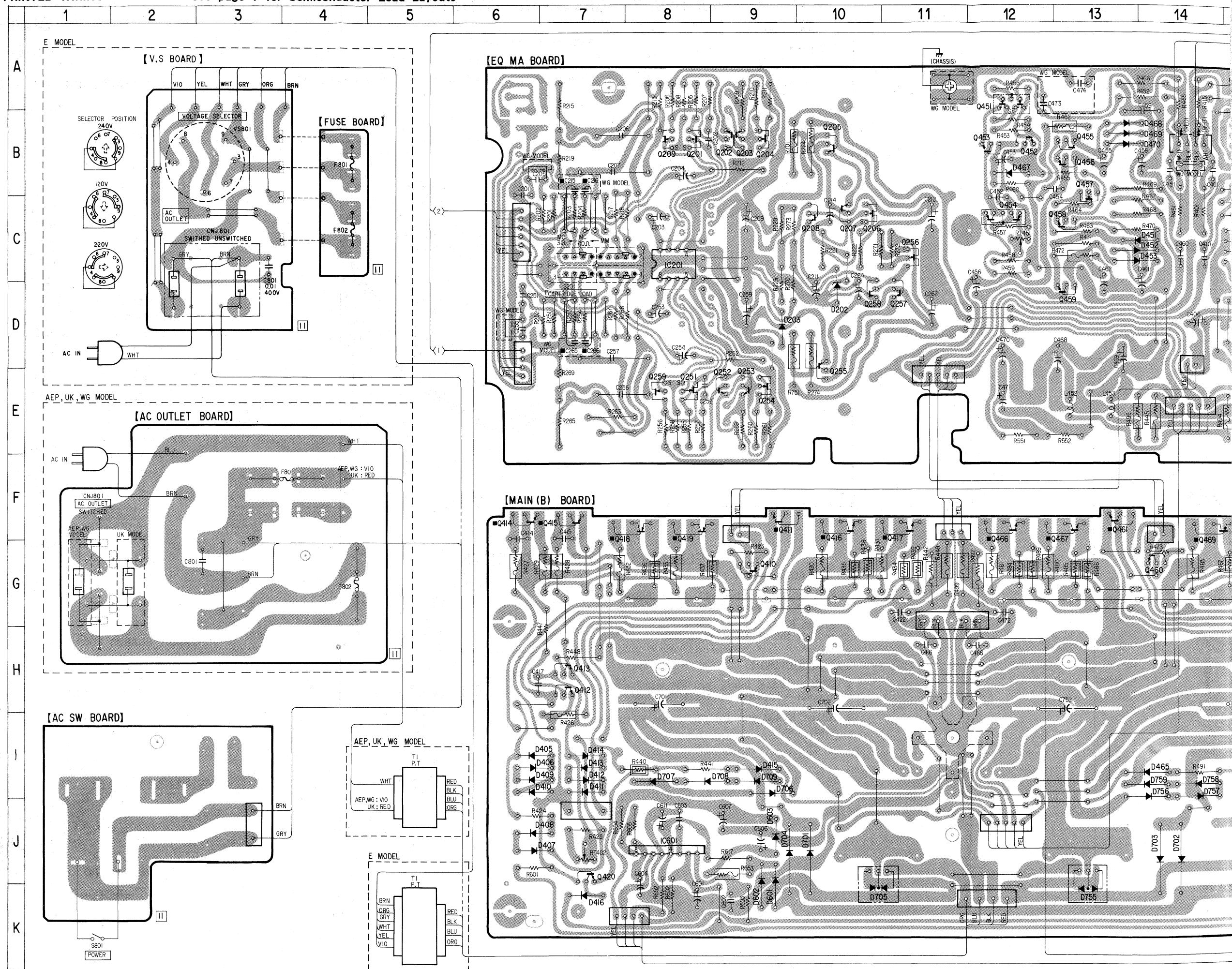
• CIRCUIT BOARDS LOCATION

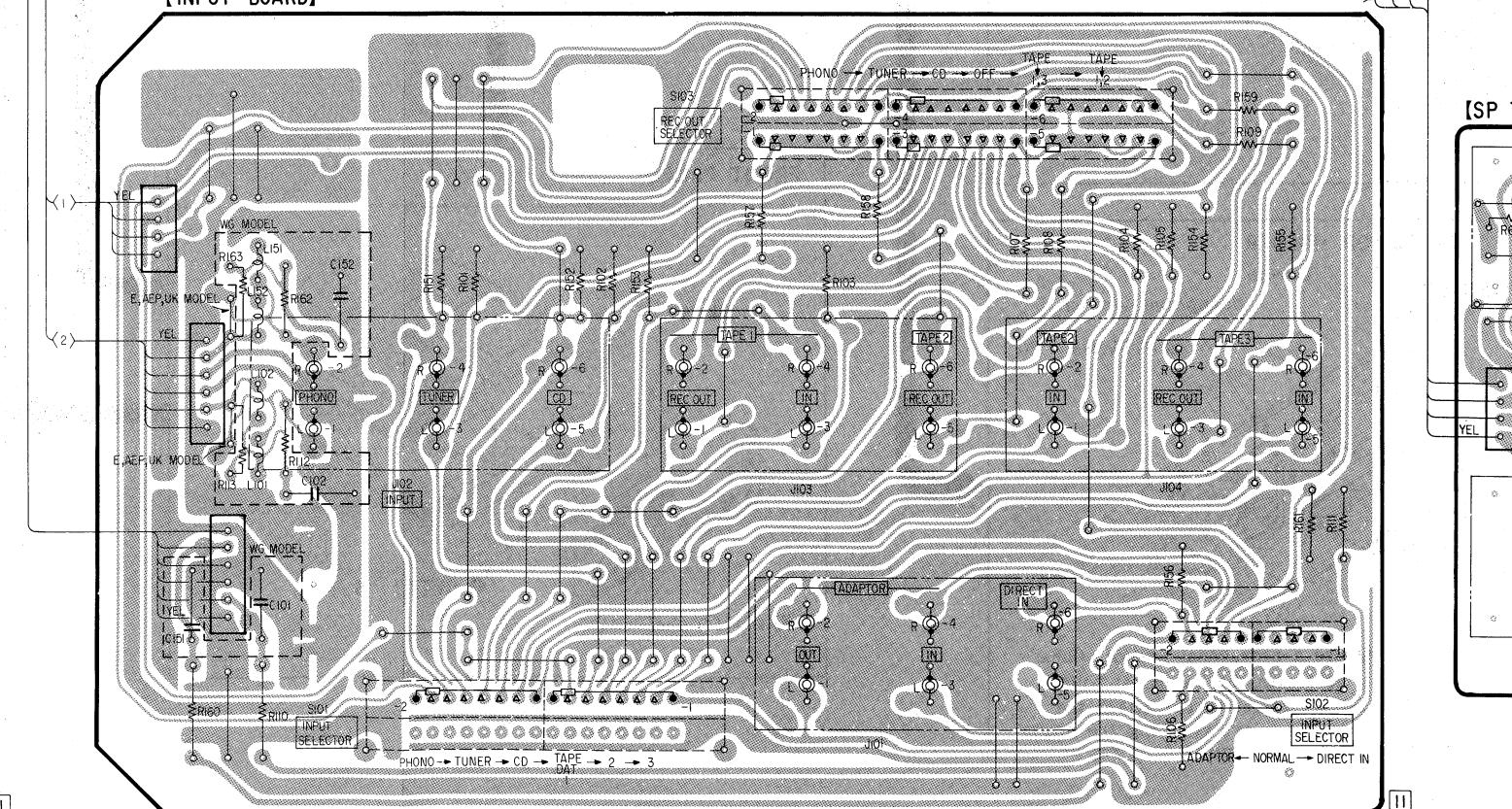
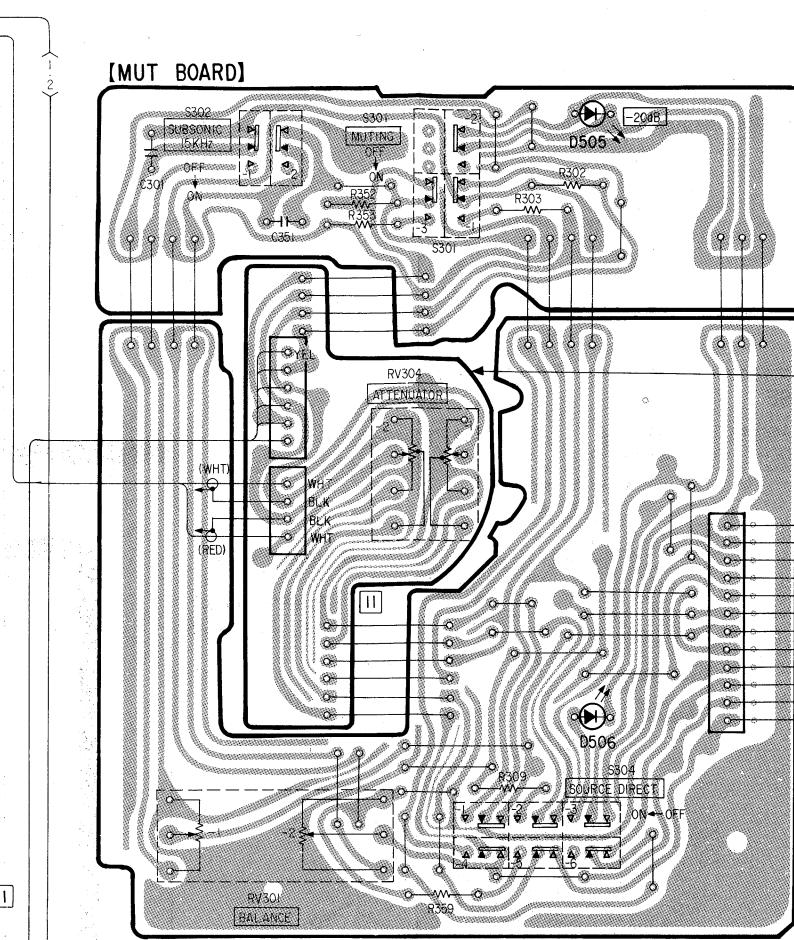
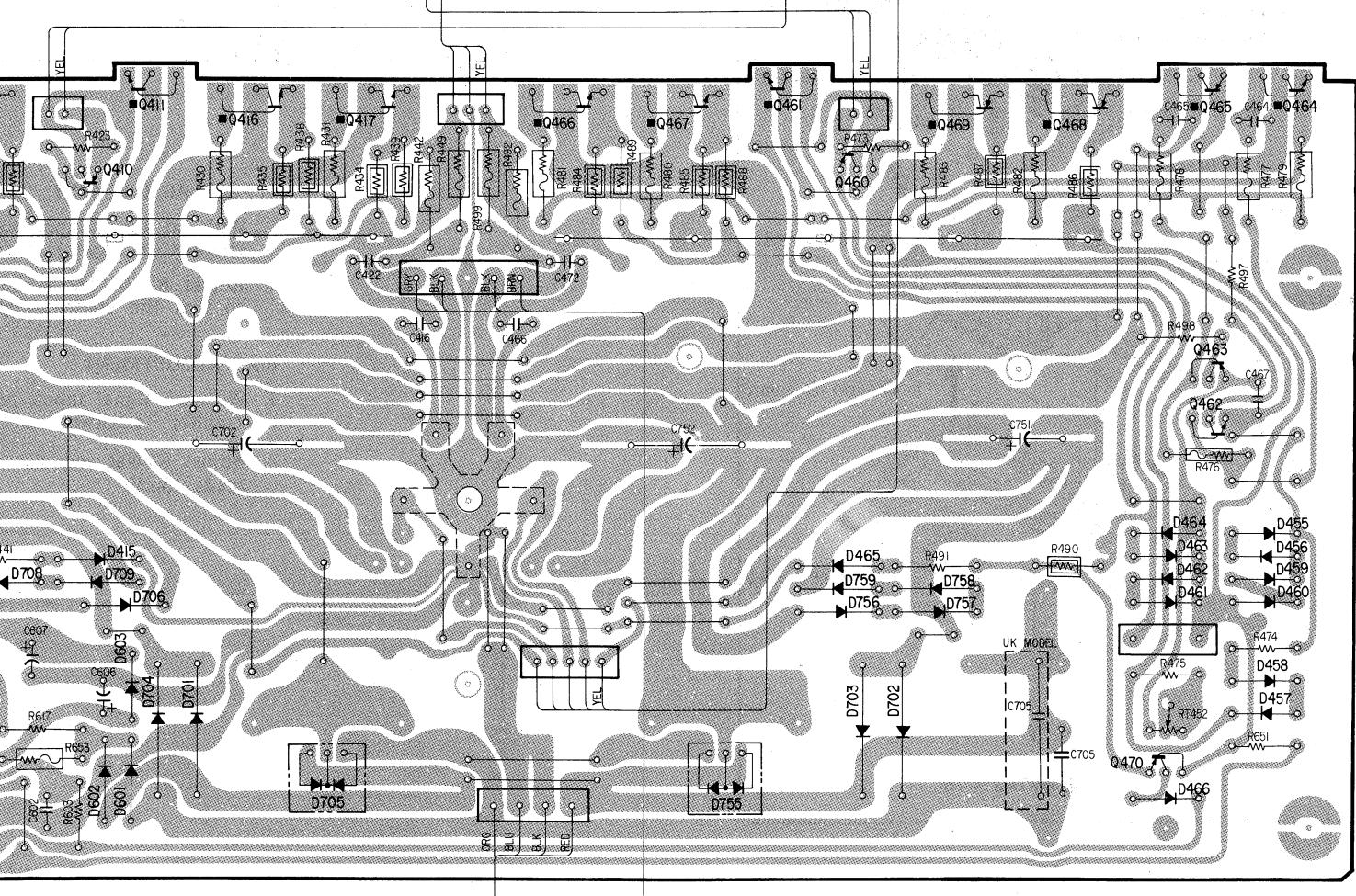
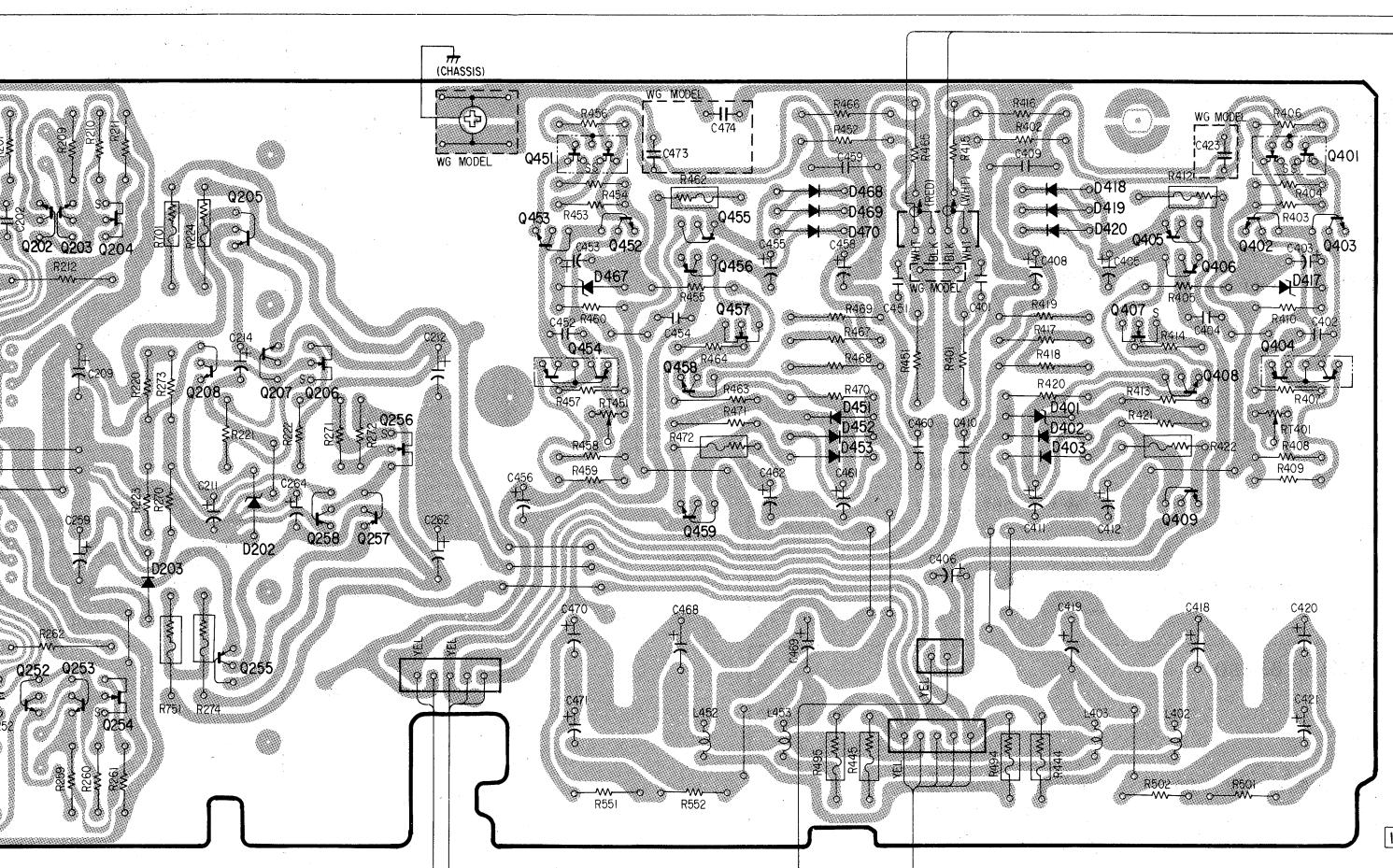


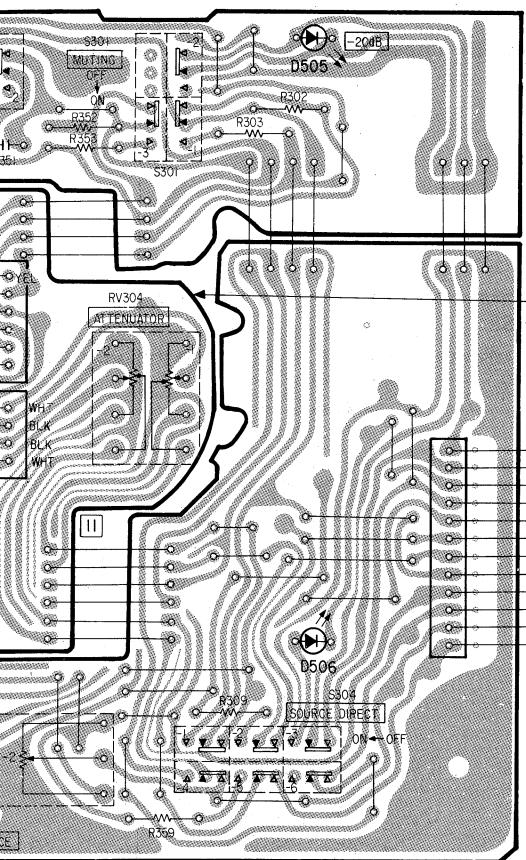
4-2. PRINTED WIRING BOARD • See page 7 for Semiconductor Lead Layouts

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D202	D-10	D758	I-14
D203	D-9	D759	I-14
D401	C-15	IC201	C-8
D402	C-15	IC601	J-8
D403	C-15		
D405	I-6	Q201	B-8
D406	I-6	Q202	B-9
D407	J-6	Q203	B-9
D408	J-6	Q204	B-9
D409	I-6	Q205	B-10
D410	J-6	Q206	C-10
D411	J-7	Q207	C-10
D412	I-7	Q208	C-10
D413	I-7	Q209	B-8
D414	I-7	Q251	E-8
D415	I-9	Q252	E-9
D416	K-7	Q253	E-9
D417	B-16	Q254	E-9
D418	B-15	Q255	E-10
D419	B-15	Q256	C-11
D420	B-15	Q257	D-11
D451	C-13	Q258	D-10
D452	C-13	Q259	E-8
D453	C-13	Q401	A-16
D456	I-16	Q402	B-16
D457	J-16	Q403	B-16
D458	J-16	Q404	C-16
D459	I-16	Q405	B-15
D460	I-16	Q406	B-16
D461	I-16	Q407	B-15
D462	I-16	Q408	C-16
D463	I-16	Q409	D-16
D464	I-16	Q410	G-9
D465	I-14	Q411	F-9
D466	K-16	Q412	H-7
D467	B-12	Q413	H-7
D468	B-13	Q414	F-6
D469	B-13	Q415	F-7
D470	B-13	Q416	F-10
D505	A-20	Q417	F-11
D506	E-20	Q418	F-8
D507	C-29	Q419	F-8
D601	K-9	Q420	K-7
D602	K-9	Q451	A-12
D603	J-9	Q452	B-12
D604	H-32	Q453	B-12
D605	B-28	Q454	C-12
D606	B-27	Q455	B-13
D607	J-31	Q456	B-13
D608	J-31	Q457	C-13
D609	I-31	Q458	C-13
D610	I-31	Q459	D-13
D611	I-31	Q460	G-14
D612	B-32	Q461	F-13
D613	B-32	Q462	H-16
D614	B-32	Q463	H-16
D701	J-10	Q464	F-16
D702	J-14	Q465	F-16
D703	J-14	Q466	F-12
D704	J-9	Q467	F-13
D705	K-10	Q468	F-15
D706	J-9	Q469	F-14
D707	I-8	Q470	J-16
D708	I-8	Q601	B-30
D709	I-9	Q602	B-30
D755	K-13	Q603	B-28
D756	I-14	Q604	B-30
D757	I-14		







4-3. SCHEMATIC DIAGRAM

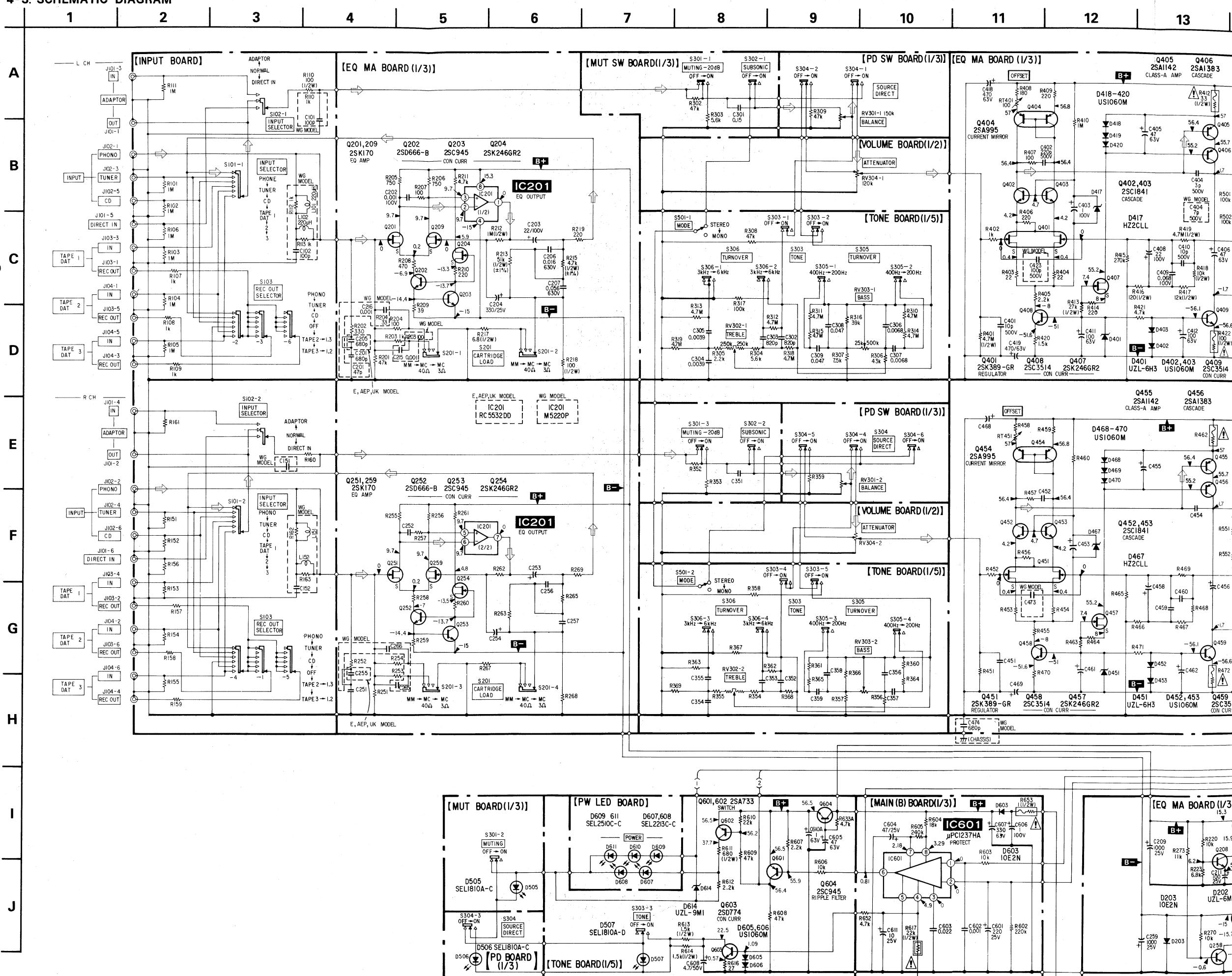
Note on Schematic Diagram :

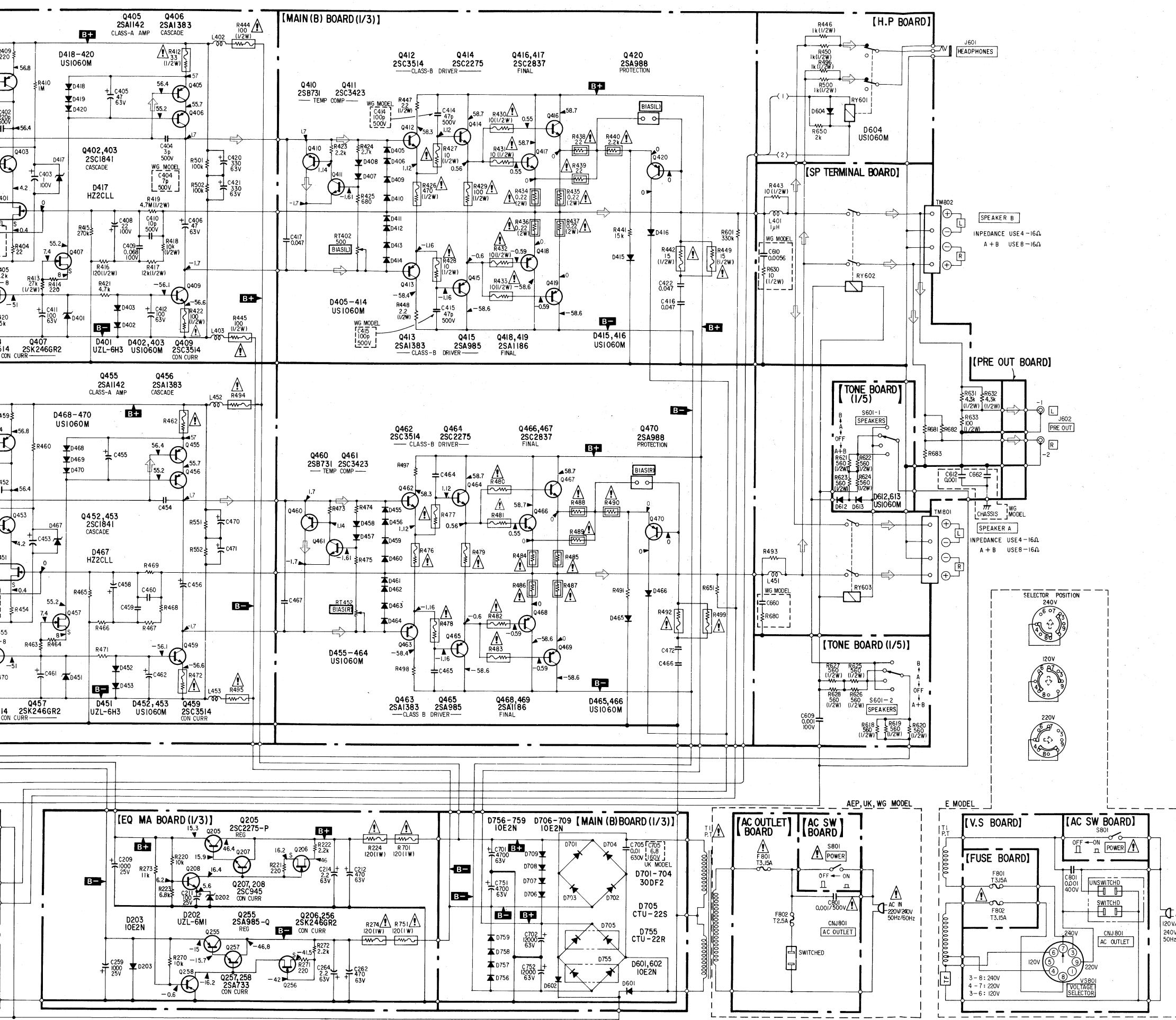
- All capacitors are in μ F unless otherwise noted. μ F: $\mu\mu$ F 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4$ W or less unless otherwise specified.
- B+** : B+ Line
- B-** : B- Line
- % : indicates tolerance.
- Components for right channel have same values as for left channel.
- : nonflammable resistor.
- : fusible resistor.
- : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10M Ω /V) Voltage variations may be noted due to normal production tolerances.
- Signal path.
- : PHONO
- WG : West Germany model

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Note on Printed Wiring Boards :

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- WG : West Germany model





SECTION 6 EXPLODED VIEWS

NOTE:

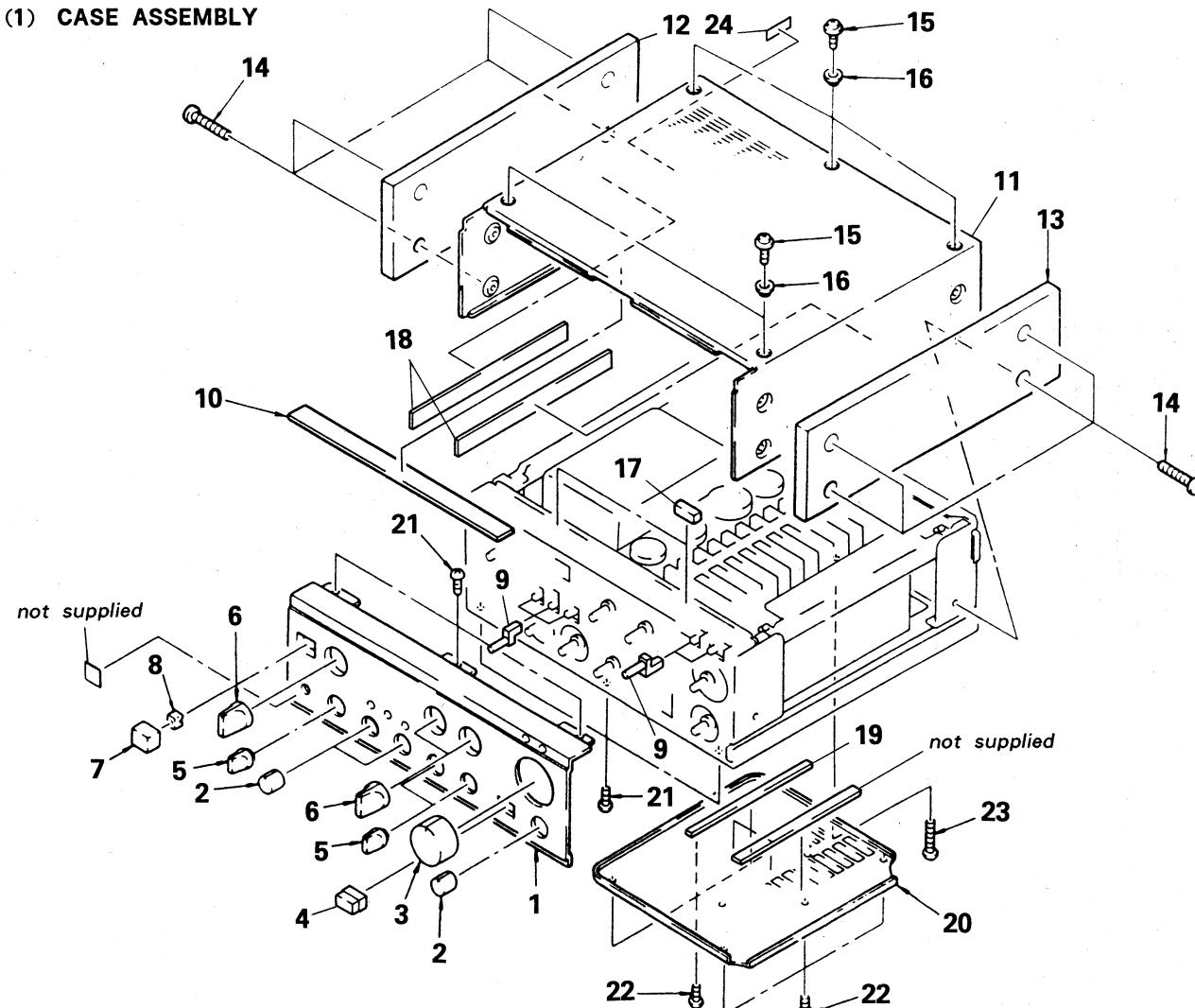
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
(RED) ... KNOB, BALANCE (WHITE)
↑ ↑
Cabinet's Color Parts Color

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

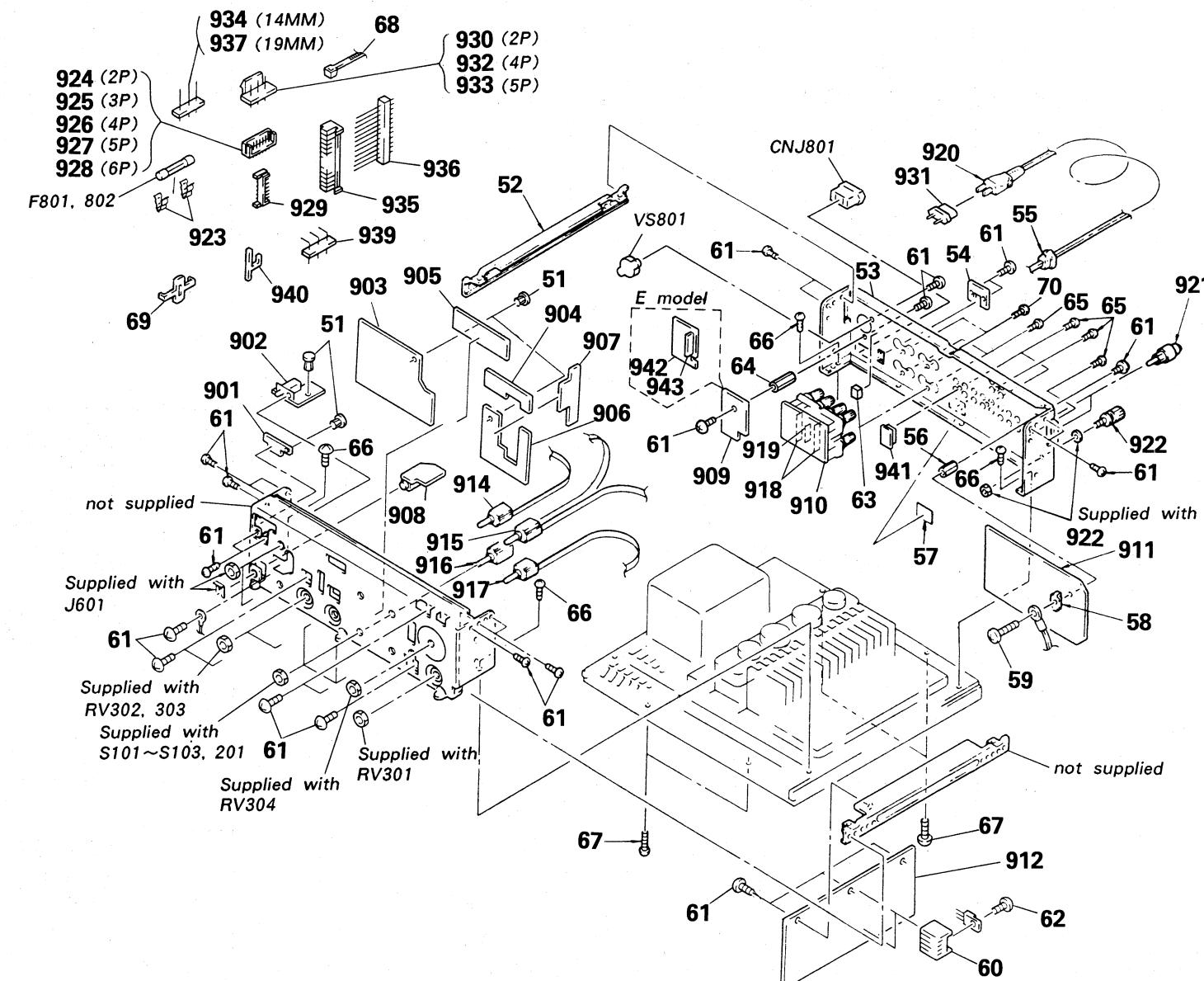
• WG : West Germany model

(1) CASE ASSEMBLY



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	A-4317-911-A A-4317-915-A	(AE,WG,UK)...PANEL ASSY, FRONT (E).....PANEL ASSY, FRONT		13	X-4885-940-1 X-4885-952-1	(AEP,E)...PLATE (RIGHT) ASSY, SIDE (WG).....PLATE (RIGHT) ASSY, SIDE	
2	4-923-871-01	KNOB (ROUND-22)(BASS/TREBLE/BALANCE)		14	4-847-802-00 4-885-979-21	(UK).....SCREW (AEP,WG,E)...SCREW (4X28)	
3	4-923-870-01	KNOB (ROUND-55)(ATTENUATOR)		15	4-886-821-01	SCREW, S TIGHT, +PTTWH 3X6	
4	4-917-460-21	KNOB (SOURCE DIRECT)		16	3-576-298-11	ESCUCHEOON	
5	4-923-869-01	KNOB (FLAT-22) (MODE/REC OUT SELECTOR/CARTRIDGE LOAD)		17	*4-908-872-01	CUSHION	
6	4-923-868-01	KNOB (FLAT-32)(INPUT SELECTOR)		18	*4-916-782-01	(UK)...DAMPER	
7	4-908-856-01	KNOB, SQUARE (POWER)		19	*4-916-782-11	DAMPER	
8	4-864-307-00	RING		20	*4-921-428-01	PLATE, BOTTOM	
9	4-923-879-01	BUTTON (DIA.4) (TURNOVER/TONE/MUTING/SUBSONIC)		21	7-682-547-09	SCREW +B 3X6	
10	*4-916-782-01	DAMPER		22	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
11	4-908-868-01	CASE		23	7-685-153-19	SCREW +P 3X30 TYPE2 SLIT	
12	X-4885-939-1 X-4885-951-1	(AEP,E)...PLATE (LEFT) ASSY, SIDE (WG).....PLATE (LEFT) ASSY, SIDE		24	*3-703-079-21	(UK)...LABEL, CAUTION (BACK)	

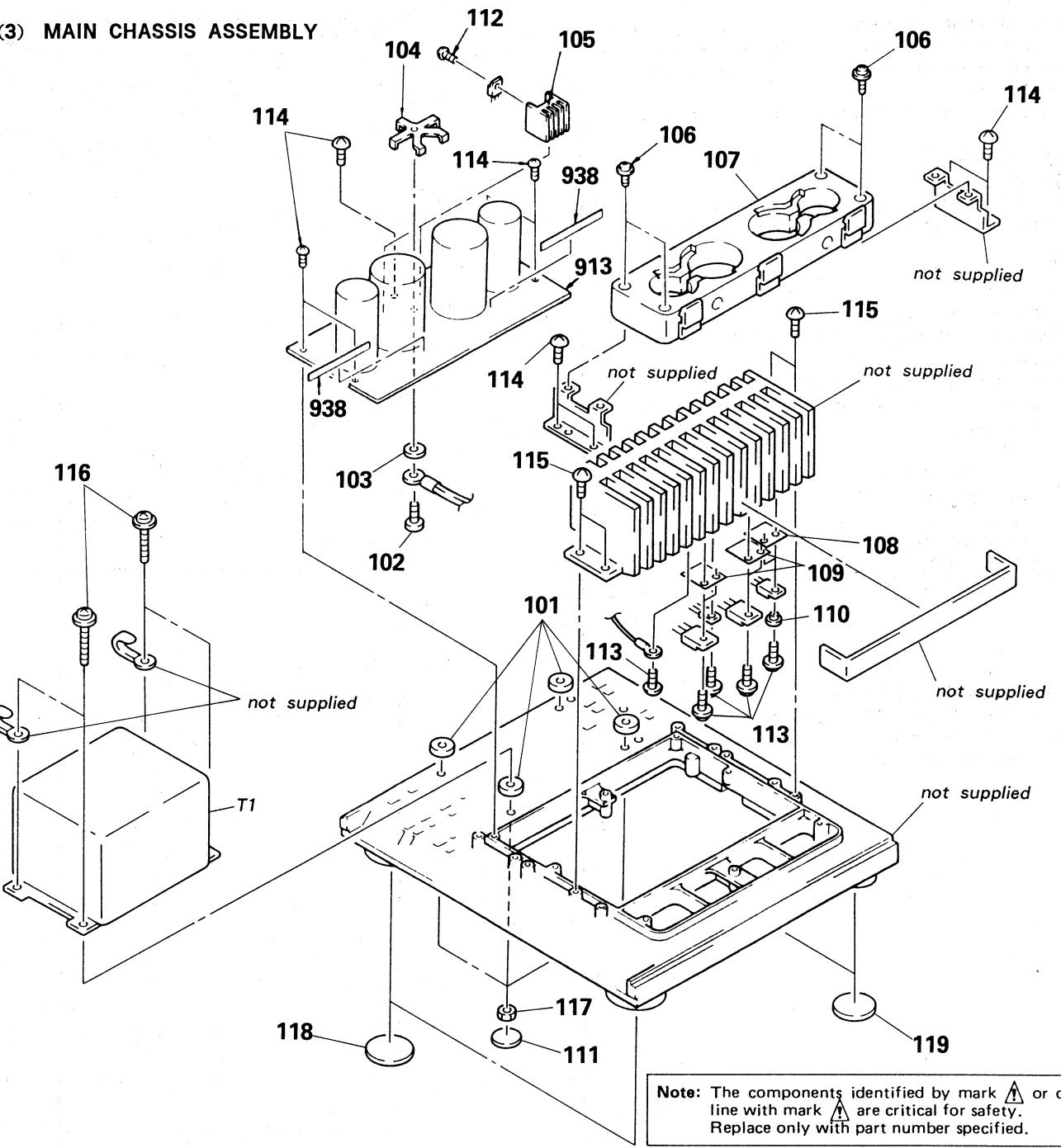
(2) FRONT CHASSIS, BACK PANEL ASSEMBLIES



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	4-812-134-00	RIVET NYLON, 3.5		914	1-571-337-11	SWITCH, ROTARY SLIDE	
52	*4-908-861-31	BRACKET, EQ		915	1-571-769-11	SWITCH, ROTARY SLIDE (REMOTE)	
53	*4-923-842-11	(AEP)...PANEL, BACK		916	1-571-770-11	SWITCH, ROTARY SLIDE (REMOTE)	
	*4-923-842-21	(WG)...PANEL, BACK		917	1-571-771-11	SWITCH, ROTARY SLIDE (REMOTE)	
	*4-923-842-31	(UK)...PANEL, BACK		918	*1-560-242-11	BUS BAR 3P	
	*4-923-842-41	(E)...PANEL, BACK		919	*1-560-242-61	BUS BAR 2P	
54	*4-923-873-01	BRACKET, CORD STOPPER		920	△.1-555-386-00	(E)...CORD, POWER	
55	△.2-352-626-11	(AEP,WG,UK)...BUSHING, CORD			△.1-559-271-11	(AEP,WG)...CORD, POWER	
	△.3-703-244-00	(E)...BUSHING (2104), CORD			△.1-559-272-11	(UK)...CORD, POWER	
56	*2-280-622-51	SUPPORT (M3), HEXAGON		921	1-506-113-00	SHORT PLUG	
57	*4-929-251-11	(AEP)...LABEL, MODEL NUMBER		922	1-535-691-11	TERMINAL	
	*4-929-252-01	(UK)...LABEL, MODEL NUMBER		923	1-533-183-11	HOLDER, FUSE	
	*4-929-253-01	(E)...LABEL, MODEL NUMBER		924	*1-564-505-11	PLUG, CONNECTOR 2P	
	*4-929-254-01	(WG)...LABEL, MODEL NUMBER		925	*1-564-506-11	PLUG, CONNECTOR 3P	
58	*4-835-639-00	PLATE, GROUND		926	*1-564-507-11	PLUG, CONNECTOR 4P	
59	7-682-149-15	SCREW, TR		927	*1-564-508-11	PLUG, CONNECTOR 5P	
60	*4-921-402-01	HEAT SINK		928	*1-564-509-11	PLUG, CONNECTOR 6P	
61	7-682-547-09	SCREW +B 3X6		929	*1-564-521-11	PLUG, CONNECTOR 6P	
62	7-682-548-09	SCREW +B 3X8		930	*1-564-321-00	PIN, CONNECTOR 2P	
63	*4-916-707-01	(E)...CUSHION		931	△.1-526-565-00	(E)...AC PLUG ADAPTOR	
64	*2-280-622-51	(AEP,WG)...SUPPORT (M3), HEXAGON		932	*1-564-241-00	PIN, CONNECTOR 4P	
	*2-280-622-61	(UK)...SUPPORT (M3X20), HEXAGON		933	*1-564-242-00	PIN, CONNECTOR 5P	
65	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		934	*1-535-136-00	(E)...BASE POST 14MM (10MM PITCH) 3P	
66	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT		935	*1-561-652-00	SOCKET, CONNECTOR 12P	
67	7-685-650-79	SCREW +BVTP 3X16 TYPE2 SLIT		936	*1-560-533-00	PIN, CONNECTOR 12P	
68	3-655-653-21	BAND (TAITON), BINDING		937	*1-535-140-00	(AEP,WG,UK)...BASE POST 19MM (10MM PITCH) 3P	
69	*4-923-814-01	(AEP,WG,UK)...PLATE, CONNECTION		938	*1-560-242-31	BUS BAR 5P	
70	3-704-242-11	(WG)...SCREW, TERMINAL, +PVTP CLAW		939	*1-560-595-21	(AEP,WG,UK)...TERMINAL (WITH BASE)	
	7-685-646-79	(AEP,UK,E)...SCREW +BVTP 3X8 TYPE2 N-2		940	*1-535-476-11	(AEP,WG,UK)...TERMINAL	
901	*1-628-959-11	PC BOARD, PW LED		941	*1-631-317-11	PC BOARD, PRE OUT	
902	*1-628-963-11	PC BOARD, AC SW		942	*1-619-928-11	PC BOARD, V.S	
903	*A-4410-864-A	MOUNTED PCB, TONE		943	*1-619-929-11	PC BOARD, FUSE (E)	
904	*1-628-954-11	PC BOARD, MUT		CNJ801△.1-526-751-00	(UK)...OUTLET, AC		
905	*1-628-957-11	PC BOARD, JUNCTION		CNJ801△.1-526-794-11	(AEP,WG)...OUTLET, AC		
				CNJ801△.1-526-883-00	(E)...OUTLET, AC		
906	*1-628-955-11	PC BOARD, PD		F801 △.1-532-237-00	FUSE, TIME-LAG (T3.15A)		
907	*1-628-953-11	PC BOARD, VOLUME		F802 △.1-532-237-00	(E)...FUSE, TIME-LAG (T3.15A)		
908	*1-628-958-11	PC BOARD, HP		F802 △.1-532-286-00	(AEP,WG,UK)...FUSE, TIME-LAG (T2.5A)		
909	*1-626-600-11	(AEP,WG,UK)...PC BOARD, AC OUTLET		VS801△.1-526-576-51	(E)...SELECTOR, POWER VOLTAGE (VOLTAGE SELECTOR)		
910	*1-628-956-11	PC BOARD, SP TERMINAL					
911	*1-628-951-11	PC BOARD, INPUT					
912	*A-4333-136-A	(WG)...MOUNTED PCB, EQ MA					
	*A-4333-176-A	(AEP,E)...MOUNTED PCB, EQ MA					
	*A-4333-669-A	(UK)...MOUNTED PCB, EQ MA					

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

(3) MAIN CHASSIS ASSEMBLY



Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	4-923-848-01	WASHER (B.S)		114	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
102	7-682-149-15	SCREW, TR		115	7-685-648-79	SCREW +BVTP 3X12 TYPE2 SLIT	
103	4-309-378-00	WASHER		116	7-682-669-09	SCREW +PSW 4X35	
104	*4-916-791-01	PLATE, GROUND, 5P		117	7-684-024-04	N 4, TYPE 2	
105	*4-921-402-01	HEAT SINK		118	*4-908-888-01	(UK)...FOOT, TUNING	
106	4-921-437-01	SCREW (M3X20), TAPPING			*4-923-850-01	(AEP,WG,E)...FOOT (DIA. 46)	
107	*X-4885-928-3	HOLDER (A) ASSY		119	*4-908-887-01	(UK)...FOOT, TUNING	
108	4-901-949-01	SHHEET, INSULATING			*4-923-849-01	(AEP,WG,E)...FOOT (DIA. 38)	
109	4-908-847-01	SHHEET, INSULATING		913	*A-4333-137-A	(WG)...MOUNTED PCB, MAIN (B)	
110	2-371-561-00	BUSHING (P), INSULATING			*A-4333-668-A	(AEP,E)...MOUNTED PCB, MAIN (B)	
111	*4-908-892-01	SPACER			*A-4333-670-A	(UK)...MOUNTED PCB, MAIN (B)	
112	7-682-548-09	SCREW +B 3X8		T1	△.1-449-652-11	(AEP)...TRANSFORMER, POWER	
113	7-682-549-01	SCREW +B 3X10			△.1-449-653-11	(WG)...TRANSFORMER, POWER	
					△.1-449-654-11	(E)...TRANSFORMER, POWER	
					△.1-449-655-11	(UK)...TRANSFORMER, POWER	

SECTION 7

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μ F, PF: $\mu\mu$ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:
UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

- WG : West Germany model

Ref.No.	Part No.	Description
901	*1-628-959-11	PC BOARD, PW LED
902	*1-628-963-11	PC BOARD, AC SW
903	*A-4410-864-A	MOUNTED PCB, TONE
904	*1-628-954-11	PC BOARD, MUT
905	*1-628-957-11	PC BOARD, JUNCTION
906	*1-628-955-11	PC BOARD, PD
907	*1-628-953-11	PC BOARD, VOLUME
908	*1-628-958-11	PC BOARD, HP
909	*1-626-600-11	(AEP,WG,UK)...PC BOARD, AC OUTLET
910	*1-628-956-11	PC BOARD, SP TERMINAL
911	*1-628-951-11	PC BOARD, INPUT
912	*A-4333-136-A	(WG).....MOUNTED PCB, EQ MA
	*A-4333-176-A	(AEP,E)....MOUNTED PCB, EQ MA
	*A-4333-669-A	(UK).....MOUNTED PCB, EQ MA
913	*A-4333-137-A	(WG).....MOUNTED PCB, MAIN (B)
	*A-4333-668-A	(AEP,E)....MOUNTED PCB, MAIN (B)
	*A-4333-670-A	(UK).....MOUNTED PCB, MAIN (B)
914	1-571-337-11	SWITCH, ROTARY SLIDE
915	1-571-769-11	SWITCH, ROTARY SLIDE (REMOTE)
916	1-571-770-11	SWITCH, ROTARY SLIDE (REMOTE)
917	1-571-771-11	SWITCH, ROTARY SLIDE (REMOTE)
918	*1-560-242-11	BUS BAR 3P
919	*1-560-242-61	BUS BAR 2P
920	A.1-555-386-00	(E).....CORD, POWER
	A.1-559-271-11	(AEP,WG)....CORD, POWER
	A.1-559-272-11	(UK).....CORD, POWER
921	1-506-113-00	SHORT PLUG
922	1-535-691-11	TERMINAL
923	1-533-183-11	HOLDER, FUSE
924	*1-564-505-11	PLUG, CONNECTOR 2P
925	*1-564-506-11	PLUG, CONNECTOR 3P
926	*1-564-507-11	PLUG, CONNECTOR 4P
927	*1-564-508-11	PLUG, CONNECTOR 5P
928	*1-564-509-11	PLUG, CONNECTOR 6P
929	*1-564-521-11	PLUG, CONNECTOR 6P
930	*1-564-321-00	PIN, CONNECTOR 2P
931	A.1-526-565-00	(E)....AC PLUG ADAPTOR
932	*1-564-241-00	PIN, CONNECTOR 4P
933	*1-564-242-00	PIN, CONNECTOR 5P
934	*1-535-136-00	(E)...BASE POST 14MM (10MM PITCH) 3P
935	*1-561-652-00	SOCKET, CONNECTOR 12P
936	*1-560-533-00	PIN, CONNECTOR 12P
937	*1-535-140-00	(AEP,WG,UK)...BASE POST 19MM (10MM PITCH) 3P
938	*1-560-242-31	BUS BAR 5P

Ref.No.	Part No.	Description				
939	*1-560-595-21	(AEP,WG,UK)...TERMINAL (WITH BASE)				
940	1-535-476-11	(AEP,WG,UK)...TERMINAL				
941	*1-631-317-11	PC BOARD, PRE OUT				
942	*1-619-928-11	PC BOARD, V.S				
943	*1-619-929-11	PC BOARD, FUSE (E)				
C101	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V				
C102	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V				
C151	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V				
C152	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V				
C201	1-107-163-00	(WG).....MICA 47PF 5% 500V				
C201	1-130-469-00	(AEP,UK,E)...MYLAR 680PF 5% 50V				
C202	1-136-250-11	FILM 0.001MF 5% 100V				
C203	1-124-748-11	ELECT 22MF 20% 100V				
C204	1-124-700-11	ELECT 330MF 20% 25V				
C205	1-130-469-00	(AEP,UK,E)...MYLAR 680PF 5% 50V				
C206	1-130-206-00	FILM 0.016MF 2% 630V				
C207	1-129-723-00	FILM 0.056MF 2% 630V				
C209	1-124-557-11	ELECT 1000MF 20% 25V				
C211	1-123-333-00	ELECT 100MF 20% 25V				
C212	1-123-377-00	ELECT 470MF 20% 63V				
C214	1-123-381-00	ELECT 2.2MF 20% 63V				
C215	1-130-471-00	(WG).....MYLAR 0.001MF 5% 50V				
C216	1-130-471-00	(WG).....MYLAR 0.001MF 5% 50V				
C251	1-107-163-00	(WG).....MICA 47PF 5% 500V				
C251	1-130-469-00	(AEP,UK,E)...MYLAR 680PF 5% 50V				
C252	1-136-250-11	FILM 0.001MF 5% 100V				
C253	1-124-748-11	ELECT 22MF 20% 100V				
C254	1-124-700-11	ELECT 330MF 20% 25V				
C255	1-130-469-00	(AEP,UK,E)...MYLAR 680PF 5% 50V				
C256	1-130-206-00	FILM 0.016MF 2% 630V				
C257	1-129-723-00	FILM 0.056MF 2% 630V				
C259	1-124-557-11	ELECT 1000MF 20% 25V				
C262	1-123-377-00	ELECT 470MF 20% 63V				
C264	1-123-381-00	ELECT 2.2MF 20% 63V				
C265	1-130-471-00	(WG).....MYLAR 0.001MF 5% 50V				
C266	1-130-471-00	(WG).....MYLAR 0.001MF 5% 50V				
C301	1-136-167-00	FILM 0.15MF 5% 50V				
C302	1-130-470-00	MYLAR 820PF 5% 50V				
C303	1-130-470-00	MYLAR 820PF 5% 50V				
C304	1-130-478-00	MYLAR 0.0039MF 5% 50V				
C305	1-130-478-00	MYLAR 0.0039MF 5% 50V				
C306	1-130-481-00	MYLAR 0.0068MF 5% 50V				
C307	1-130-481-00	MYLAR 0.0068MF 5% 50V				
C308	1-136-161-00	FILM 0.047MF 5% 50V				
C309	1-136-161-00	FILM 0.047MF 5% 50V				

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
C351	1-136-167-00	FILM	0.15MF	5%	50V	C472	1-136-161-00	FILM	0.047MF	5%	50V
C352	1-130-470-00	MYLAR	820PF	5%	50V	C473	1-107-169-00	(WG)...MICA	100PF	5%	500V
C353	1-130-470-00	MYLAR	820PF	5%	50V	C474	1-130-469-00	(WG)...MYLAR	680PF	5%	50V
C354	1-130-478-00	MYLAR	0.0039MF	5%	50V	C601	1-123-334-00	ELECT	220MF	20%	25V
C355	1-130-478-00	MYLAR	0.0039MF	5%	50V	C602	1-130-471-00	MYLAR	0.001MF	5%	50V
C356	1-130-481-00	MYLAR	0.0068MF	5%	50V	C603	1-136-157-00	FILM	0.022MF	5%	50V
C357	1-130-481-00	MYLAR	0.0068MF	5%	50V	C604	1-123-332-00	ELECT	47MF	20%	25V
C358	1-136-161-00	FILM	0.047MF	5%	50V	C605	1-124-918-11	ELECT	47MF	20%	63V
C359	1-136-161-00	FILM	0.047MF	5%	50V	C606	1-123-380-00	ELECT	1MF	20%	100V
C401	1-107-202-00	MICA	10PF	0.5PF	500V	C607	1-123-376-00	ELECT	330MF	20%	63V
C402	1-109-621-00	MICA	220PF	5%	500V	C608	1-123-369-00	ELECT	4.7MF	20%	50V
C403	1-123-380-00	ELECT	1MF	20%	100V	C609	1-106-343-00	MYLAR	0.001MF	10%	100V
C404	1-107-048-00	(WG).....MICA	7PF	0.5PF	500V	C610A	1-123-380-00	ELECT	1MF	20%	63V
C404	1-107-276-11	(AEP,UK,E)....MICA	3PF	0.5PF	500V	C610	1-130-480-00	(WG)...MYLAR	0.0056MF	5%	50V
C405	1-124-918-11	ELECT	47MF	20%	63V	C611	1-123-356-00	ELECT	10MF	20%	25V
C406	1-124-918-11	ELECT	47MF	20%	63V	C612	1-106-343-00	(WG)...MYLAR	0.001MF	10%	100V
C408	1-124-748-11	ELECT	22MF	20%	100V	C660	1-130-480-00	(WG)...MYLAR	0.0056MF	5%	50V
C409	1-130-317-00	FILM	0.068MF	5%	100V	C662	1-106-343-00	(WG)...MYLAR	0.001MF	10%	100V
C410	1-107-202-00	MICA	10PF	0.5PF	500V	C701	1-125-503-11	CAP, ELECT	4700MF	63V	
C411	1-124-130-00	ELECT	100MF	20%	63V	C702	1-125-381-00	CAP, ELECT	12000MF	63V	
C412	1-124-130-00	ELECT	100MF	20%	63V	C705	1-136-601-11	(AEP,WG,E)...FILM	0.01MF	10%	630V
C414	1-107-163-00	(AEP,UK,E)....MICA	47PF	5%	500V	C705	1-136-905-11	(UK).....FILM	6.8MF	10%	160V
C414	1-107-169-00	(WG).....MICA	100PF	5%	500V	C751	1-125-503-11	CAP, ELECT	4700MF	63V	
C415	1-107-163-00	(AEP,UK,E)....MICA	47PF	5%	500V	C752	1-125-381-00	CAP, ELECT	12000MF	63V	
C415	1-107-169-00	(WG).....MICA	100PF	5%	500V	C801	1-161-741-00	CERAMIC	0.001MF	10%	400V
C416	1-136-161-00	FILM	0.047MF	5%	50V	CNJ801Δ1-526-751-00	(UK).....OUTLET, AC				
C417	1-136-161-00	FILM	0.047MF	5%	50V	CNJ801Δ1-526-794-11	(AEP,WG)...OUTLET, AC				
C418	1-123-377-00	ELECT	470MF	20%	63V	CNJ801Δ1-526-883-00	(E).....OUTLET, AC				
C419	1-123-377-00	ELECT	470MF	20%	63V	D202	8-719-933-36	ZENER DIODE HZS6B1L			
C420	1-123-376-00	ELECT	330MF	20%	63V	D203	8-719-200-77	DIODE 10E2N			
C421	1-123-376-00	ELECT	330MF	20%	63V	D401	8-719-933-41	ZENER DIODE HZS6C3L			
C422	1-136-161-00	FILM	0.047MF	5%	50V	D402	8-719-000-26	DIODE US1060M			
C423	1-107-163-00	(AEP,UK,E)....MICA	47PF	5%	500V	D403	8-719-000-26	DIODE US1060M			
C451	1-107-202-00	MICA	10PF	0.5PF	500V	D405	8-719-000-26	DIODE US1060M			
C452	1-109-621-00	MICA	220PF	5%	500V	D406	8-719-000-26	DIODE US1060M			
C453	1-123-380-00	ELECT	1MF	20%	100V	D407	8-719-000-26	DIODE US1060M			
C453	1-123-380-00	ELECT	1MF	20%	100V	D408	8-719-000-26	DIODE US1060M			
C454	1-107-048-00	(WG).....MICA	7PF	0.5PF	500V	D409	8-719-000-26	DIODE US1060M			
C454	1-107-276-11	(AEP,UK,E)....MICA	3PF	0.5PF	500V	D410	8-719-000-26	DIODE US1060M			
C455	1-124-918-11	ELECT	47MF	20%	63V	D411	8-719-000-26	DIODE US1060M			
C456	1-124-918-11	ELECT	47MF	20%	63V	D412	8-719-000-26	DIODE US1060M			
C458	1-124-748-11	ELECT	22MF	20%	100V	D413	8-719-000-26	DIODE US1060M			
C459	1-130-317-00	FILM	0.068MF	5%	100V	D414	8-719-000-26	DIODE US1060M			
C460	1-107-202-00	MICA	10PF	0.5PF	500V	D415	8-719-000-26	DIODE US1060M			
C461	1-124-130-00	ELECT	100MF	20%	63V	D416	8-719-000-26	DIODE US1060M			
C462	1-124-130-00	ELECT	100MF	20%	63V	D417	8-719-921-13	ZENER DIODE HZ2CLL			
C464	1-107-163-00	MICA	47PF	5%	500V	D418	8-719-000-26	DIODE US1060M			
C464	1-107-169-00	(WG).....MICA	100PF	5%	500V	D419	8-719-000-26	DIODE US1060M			
C465	1-107-169-00	(WG).....MICA	47PF	5%	500V	D420	8-719-000-26	DIODE US1060M			
C465	1-107-163-00	MICA	47PF	5%	500V	D451	8-719-933-41	ZENER DIODE HZS6C3L			
C466	1-136-161-00	FILM	0.047MF	5%	50V	D452	8-719-000-26	DIODE US1060M			
C467	1-136-161-00	FILM	0.047MF	5%	50V	D453	8-719-000-26	DIODE US1060M			
C468	1-123-377-00	ELECT	470MF	20%	63V	D455	8-719-000-26	DIODE US1060M			
C469	1-123-377-00	ELECT	470MF	20%	63V	D456	8-719-000-26	DIODE US1060M			
C470	1-123-376-00	ELECT	330MF	20%	63V	D457	8-719-000-26	DIODE US1060M			
C471	1-123-376-00	ELECT	330MF	20%	63V						

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D458	8-719-000-26	DIODE US1060M	L101	1-413-101-00	(WG)...COIL, AIR-CORE
D459	8-719-000-26	DIODE US1060M	L102	1-413-101-00	(WG)...COIL, AIR-CORE
D460	8-719-000-26	DIODE US1060M	L151	1-413-101-00	(WG)...COIL, AIR-CORE
D461	8-719-000-26	DIODE US1060M	L152	1-413-101-00	(WG)...COIL, AIR-CORE
D462	8-719-000-26	DIODE US1060M	L401	*1-422-009-13	COIL, AIR-CORE
D463	8-719-000-26	DIODE US1060M	L402	1-422-261-11	COIL, AIR-CORE
D464	8-719-000-26	DIODE US1060M	L403	1-422-261-11	COIL, AIR-CORE
D465	8-719-000-26	DIODE US1060M	L451	*1-422-009-13	COIL, AIR-CORE
D466	8-719-000-26	DIODE US1060M	L452	1-422-261-11	COIL, AIR-CORE
D467	8-719-921-13	ZENER DIODE HZ2CLL	L453	1-422-261-11	COIL, AIR-CORE
D468	8-719-000-26	DIODE US1060M	Q201	8-729-217-04	TRANSISTOR 2SK170-V
D469	8-719-000-26	DIODE US1060M	Q202	8-729-366-61	TRANSISTOR 2SD666-B
D470	8-719-000-26	DIODE US1060M	Q203	8-729-119-78	TRANSISTOR 2SC2785-HFE
D505	8-719-302-07	LED SEL1810A (MUTE)	Q204	8-729-201-56	TRANSISTOR 2SK246GR2
D506	8-719-302-07	LED SEL1810A (SOURCE DIRECT)	Q205	8-729-127-53	TRANSISTOR 2SC2275-P
D507	8-719-302-07	LED SEL1810A (TONE)	Q206	8-729-201-56	TRANSISTOR 2SK246GR2
D601	8-719-200-77	DIODE 10E2N	Q207	8-729-119-78	TRANSISTOR 2SC2785-HFE
D602	8-719-200-77	DIODE 10E2N	Q208	8-729-119-78	TRANSISTOR 2SC2785-HFE
D603	8-719-200-77	DIODE 10E2N	Q209	8-729-217-04	TRANSISTOR 2SK170-V
D604	8-719-000-26	DIODE US1060M	Q251	8-729-217-04	TRANSISTOR 2SK170-V
D605	8-719-000-26	DIODE US1060M	Q252	8-729-366-61	TRANSISTOR 2SD666-B
D606	8-719-000-26	DIODE US1060M	Q253	8-729-119-78	TRANSISTOR 2SC2785-HFE
D607	8-719-300-82	LED SEL2213C (POWER (RED))	Q254	8-729-201-56	TRANSISTOR 2SK246GR2
D608	8-719-300-82	LED SEL2213C (POWER (RED))	Q255	8-729-190-53	TRANSISTOR 2SA985A-P
D609	8-719-303-00	LED SEL2510C (POWER (GREEN))	Q256	8-729-201-56	TRANSISTOR 2SK246GR2
D610	8-719-303-00	LED SEL2510C (POWER (GREEN))	Q257	8-729-173-38	TRANSISTOR 2SA733-K
D611	8-719-303-00	LED SEL2510C (POWER (GREEN))	Q258	8-729-173-38	TRANSISTOR 2SA733-K
D612	8-719-000-26	DIODE US1060M	Q259	8-729-217-04	TRANSISTOR 2SK170-V
D613	8-719-000-26	DIODE US1060M	Q401	8-729-203-21	TRANSISTOR 2SK389-GR
D614	8-719-933-57	ZENER DIODE HZS9B2L	Q402	8-729-108-05	TRANSISTOR 2SA1841-PA
D701	8-719-230-02	DIODE 30DF2	Q403	8-729-108-05	TRANSISTOR 2SA1841-PA
D702	8-719-230-02	DIODE 30DF2	Q404	8-729-699-51	TRANSISTOR 2SA995-F
D703	8-719-230-02	DIODE 30DF2	Q405	8-729-802-71	TRANSISTOR 2SA1407-D
D704	8-719-230-02	DIODE 30DF2	Q406	8-729-104-91	TRANSISTOR 2SA1383
D705	8-719-300-27	DIODE CTU-22S	Q407	8-729-201-56	TRANSISTOR 2SK246GR2
D706	8-719-200-77	DIODE 10E2N	Q408	8-729-104-18	TRANSISTOR 2SC3514-Q
D707	8-719-200-77	DIODE 10E2N	Q409	8-729-104-18	TRANSISTOR 2SC3514-Q
D708	8-719-200-77	DIODE 10E2N	Q410	8-729-173-13	TRANSISTOR 2SB731-F
D709	8-719-200-77	DIODE 10E2N	Q411	8-729-203-45	TRANSISTOR 2SC3423-0
D755	8-719-300-25	DIODE CTU-22R	Q412	8-729-104-18	TRANSISTOR 2SC3514-Q
D756	8-719-200-77	DIODE 10E2N	Q413	8-729-104-91	TRANSISTOR 2SA1383-Q
D757	8-719-200-77	DIODE 10E2N	Q414	8-729-107-53	TRANSISTOR 2SC2275A-P
D758	8-719-200-77	DIODE 10E2N	Q415	8-729-190-53	TRANSISTOR 2SA985A-P
D759	8-719-200-77	DIODE 10E2N	Q416	8-729-383-73	TRANSISTOR 2SC2837-Y
F801	Δ.1-532-237-00	FUSE, TIME-LAG (T3.15A)	Q417	8-729-383-73	TRANSISTOR 2SC2837-Y
F802	Δ.1-532-237-00	(E).....FUSE, TIME-LAG (T3.15A)	Q418	8-729-318-63	TRANSISTOR 2SA1186-Y
F802	Δ.1-532-286-00	(AEP,WG,UK)...FUSE, TIME-LAG (T2.5A)	Q419	8-729-318-63	TRANSISTOR 2SA1186-Y
IC201	8-759-602-01	(WG).....IC M5220P	Q420	8-729-108-14	TRANSISTOR 2SA988-F
IC201	8-759-982-03	(AEP,UK,E)...IC RC5532DD	Q451	8-729-203-21	TRANSISTOR 2SK389-GR
IC601	8-759-111-68	IC UPC1237HA	Q452	8-729-108-05	TRANSISTOR 2SA1841-PA
J101	1-507-831-00	JACK, PIN 6P	Q453	8-729-108-05	TRANSISTOR 2SA1841-PA
J102	1-507-831-31	JACK, PIN 6P (INPUT)	Q454	8-729-699-51	TRANSISTOR 2SA995-F
J103	1-507-831-00	JACK, PIN 6P	Q455	8-729-802-71	TRANSISTOR 2SA1407-D
J104	1-507-831-00	JACK, PIN 6P	Q456	8-729-104-91	TRANSISTOR 2SA1383
J601	1-507-863-51	JACK, LARGE TYPE (HEADPHONES)	Q457	8-729-201-56	TRANSISTOR 2SK246GR2
J602	1-507-852-00	JACK, PIN 2P (PRE OUT)	Q458	8-729-104-18	TRANSISTOR 2SC3514-Q
			Q459	8-729-104-18	TRANSISTOR 2SC3514-Q
			Q460	8-729-173-13	TRANSISTOR 2SB731-F

Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Ref. No.	Part No.	Description			
Q461	8-729-203-45	TRANSISTOR	2SC3423-0		R211	1-247-721-11	CARBON	4.7K	5% 1/4W	
Q462	8-729-104-18	TRANSISTOR	2SC3514-Q		R212	1-214-937-00	CARBON	1M	5% 1/2W	
Q463	8-729-104-91	TRANSISTOR	2SA1383-Q		R213	1-249-844-11	CARBON	56K	1% 1/2W	
Q464	8-729-107-53	TRANSISTOR	2SC2275A-P		R215	1-249-818-11	CARBON	4.7K	1% 1/2W	
Q465	8-729-190-53	TRANSISTOR	2SA985A-P		R217	1-259-501-11	CARBON	6.8	5% 1/2W	
Q466	8-729-383-73	TRANSISTOR	2SC2837-Y		R218	1-247-739-11	CARBON	100	5% 1/2W	
Q467	8-729-383-73	TRANSISTOR	2SC2837-Y		R219	1-247-704-11	CARBON	220	5% 1/4W	
Q468	8-729-318-63	TRANSISTOR	2SA1186-Y		R220	1-247-725-11	CARBON	10K	5% 1/4W	
Q469	8-729-318-63	TRANSISTOR	2SA1186-Y		R221	1-247-704-11	CARBON	220	5% 1/4W	
Q470	8-729-108-14	TRANSISTOR	2SA988-F		R222	1-247-717-11	CARBON	2.2K	5% 1/4W	
Q601	8-729-173-36	TRANSISTOR	2SA733-Q		R223	1-247-723-11	CARBON	6.8K	5% 1/4W	
Q602	8-729-173-36	TRANSISTOR	2SA733-Q		R224	Δ 1-213-086-00	FUSIBLE	120	5% 1W F	
Q603	8-729-177-42	TRANSISTOR	2SD774-3		R251	1-249-465-11	CARBON	47K	5% 1/4W	
Q604	8-729-194-57	TRANSISTOR	2SC945-P		R252	1-247-706-11	CARBON	330	5% 1/4W	
R101	1-246-545-00	CARBON	1M	5%	1/4W	R253	1-247-700-11	(WG).....CARBON	100	5% 1/4W
R102	1-246-545-00	CARBON	1M	5%	1/4W	R253	1-247-713-11	(AEP,UK,E)....CARBON	1K	5% 1/4W
R103	1-246-545-00	CARBON	1M	5%	1/4W	R254	1-247-516-11	(WG).....CARBON	33	5% 1/4W
R104	1-246-545-00	CARBON	1M	5%	1/4W	R254	1-247-700-11	(AEP,UK,E)....CARBON	100	5% 1/4W
R105	1-246-545-00	CARBON	1M	5%	1/4W	R255	1-247-128-00	CARBON	750	5% 1/4W
R106	1-246-545-00	CARBON	1M	5%	1/4W	R256	1-247-128-00	CARBON	750	5% 1/4W
R107	1-247-713-11	CARBON	1K	5%	1/4W	R257	1-247-700-11	CARBON	100	5% 1/4W
R108	1-247-713-11	CARBON	1K	5%	1/4W	R258	1-247-708-11	CARBON	470	5% 1/4W
R109	1-247-713-11	CARBON	1K	5%	1/4W	R259	1-247-695-11	CARBON	39	5% 1/4W
R110	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R260	1-247-704-11	CARBON	220	5% 1/4W
R110	1-247-739-11	(AEP,UK,E)....CARBON	100	5%	1/2W	R261	1-247-721-11	CARBON	4.7K	5% 1/4W
R111	1-246-545-00	CARBON	1M	5%	1/4W	R262	1-214-937-00	CARBON	1M	5% 1/2W
R112	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R263	1-249-844-11	CARBON	56K	1% 1/2W
R113	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R265	1-249-818-11	CARBON	4.7K	1% 1/2W
R151	1-246-545-00	CARBON	1M	5%	1/4W	R267	1-259-501-11	CARBON	6.8	5% 1/2W
R152	1-246-545-00	CARBON	1M	5%	1/4W	R268	1-247-739-11	CARBON	100	5% 1/2W
R153	1-246-545-00	CARBON	1M	5%	1/4W	R269	1-247-704-11	CARBON	220	5% 1/4W
R154	1-246-545-00	CARBON	1M	5%	1/4W	R270	1-247-725-11	CARBON	10K	5% 1/4W
R155	1-246-545-00	CARBON	1M	5%	1/4W	R271	1-247-704-11	CARBON	220	5% 1/4W
R156	1-246-545-00	CARBON	1M	5%	1/4W	R272	1-247-717-11	CARBON	2.2K	5% 1/4W
R157	1-247-713-11	CARBON	1K	5%	1/4W	R273	1-249-577-11	CARBON	11K	5% 1/4W
R158	1-247-713-11	CARBON	1K	5%	1/4W	R274	Δ 1-213-086-00	FUSIBLE	120	5% 1W F
R159	1-247-713-11	CARBON	1K	5%	1/4W	R302	1-249-465-11	CARBON	47K	5% 1/4W
R160	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R303	1-247-722-11	CARBON	5.6K	5% 1/4W
R160	1-247-739-11	(AEP,UK,E)....CARBON	100	5%	1/2W	R304	1-247-722-11	CARBON	5.6K	5% 1/4W
R161	1-246-545-00	CARBON	1M	5%	1/4W	R305	1-247-717-11	CARBON	2.2K	5% 1/4W
R162	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R306	1-249-591-11	CARBON	43K	5% 1/4W
R163	1-247-713-11	(WG).....CARBON	1K	5%	1/4W	R307	1-247-152-00	CARBON	7.5K	5% 1/4W
R201	1-249-465-11	CARBON	47K	5%	1/4W	R308	1-249-465-11	CARBON	47K	5% 1/4W
R202	1-247-706-11	CARBON	330	5%	1/4W	R309	1-249-465-11	CARBON	47K	5% 1/4W
R203	1-247-700-11	(WG).....CARBON	100	5%	1/4W	R310	1-259-502-11	CARBON	4.7M	5% 1/4W
R203	1-247-713-11	(AEP,UK,E)....CARBON	1K	5%	1/4W	R311	1-259-502-11	CARBON	4.7M	5% 1/4W
R204	1-247-516-11	(WG).....CARBON	33	5%	1/4W	R312	1-259-502-11	CARBON	4.7M	5% 1/4W
R204	1-247-700-11	(AEP,UK,E)....CARBON	100	5%	1/4W	R313	1-259-502-11	CARBON	4.7M	5% 1/4W
R205	1-247-128-00	CARBON	750	5%	1/4W	R314	1-259-502-11	CARBON	4.7M	5% 1/4W
R206	1-247-128-00	CARBON	750	5%	1/4W	R315	1-259-502-11	CARBON	4.7M	5% 1/4W
R207	1-247-700-11	CARBON	100	5%	1/4W	R316	1-249-590-11	CARBON	39K	5% 1/4W
R208	1-247-708-11	CARBON	470	5%	1/4W	R317	1-249-469-11	CARBON	100K	5% 1/4W
R209	1-247-695-11	CARBON	39	5%	1/4W	R318	1-259-502-11	CARBON	4.7M	5% 1/4W
R210	1-247-704-11	CARBON	220	5%	1/4W	R319	1-259-502-11	CARBON	4.7M	5% 1/4W
						R352	1-249-465-11	CARBON	47K	5% 1/4W
						R353	1-247-722-11	CARBON	5.6K	5% 1/4W
						R354	1-247-722-11	CARBON	5.6K	5% 1/4W

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Ref. No.	Part No.	Description	Value	Unit	Value	Unit
R355	1-247-717-11	CARBON	2.2K	5%	1/4W	
R356	1-249-591-11	CARBON	43K	5%	1/4W	
R357	1-247-152-00	CARBON	7.5K	5%	1/4W	
R358	1-249-465-11	CARBON	47K	5%	1/4W	
R359	1-249-465-11	CARBON	47K	5%	1/4W	
R360	1-259-502-11	CARBON	4.7M	5%	1/4W	
R361	1-259-502-11	CARBON	4.7M	5%	1/4W	
R362	1-259-502-11	CARBON	4.7M	5%	1/4W	
R363	1-259-502-11	CARBON	4.7M	5%	1/4W	
R364	1-259-502-11	CARBON	4.7M	5%	1/4W	
R365	1-259-502-11	CARBON	4.7M	5%	1/4W	
R366	1-249-590-11	CARBON	39K	5%	1/4W	
R367	1-249-469-11	CARBON	100K	5%	1/4W	
R368	1-259-502-11	CARBON	4.7M	5%	1/4W	
R369	1-259-502-11	CARBON	4.7M	5%	1/4W	
R401	1-259-503-11	CARBON	4.7M	5%	1/2W	
R402	1-247-713-11	CARBON	1K	5%	1/4W	
R403	1-247-692-11	CARBON	22	5%	1/4W	
R404	1-247-692-11	CARBON	22	5%	1/4W	
R405	1-247-717-11	CARBON	2.2K	5%	1/4W	
R406	1-247-704-11	CARBON	220	5%	1/4W	
R407	1-247-700-11	CARBON	100	5%	1/4W	
R408	1-247-703-11	CARBON	180	5%	1/4W	
R409	1-247-704-11	CARBON	220	5%	1/4W	
R410	1-246-545-00	CARBON	1M	5%	1/4W	
R412	△.1-219-010-11	FUSIBLE	33	5%	1/2W	
R413	1-249-490-11	CARBON	27K	5%	1/2W	
R414	1-247-704-11	CARBON	220	5%	1/4W	
R415	1-246-531-00	CARBON	270K	5%	1/4W	
R416	1-247-740-11	CARBON	120	5%	1/2W	
R417	1-249-486-11	CARBON	12K	5%	1/2W	
R418	1-247-764-11	CARBON	10K	5%	1/2W	
R419	1-259-503-11	CARBON	4.7M	5%	1/2W	
R420	1-247-715-11	CARBON	1.5K	5%	1/4W	
R421	1-247-721-11	CARBON	4.7K	5%	1/4W	
R422	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R423	1-247-717-11	CARBON	2.2K	5%	1/4W	
R424	1-247-718-11	CARBON	2.7K	5%	1/4W	
R425	1-247-711-11	CARBON	680	5%	1/4W	
R426	△.1-212-998-00	FUSIBLE	470	5%	1/2W	F
R427	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R428	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R429	△.1-212-982-00	FUSIBLE	100	5%	1/2W	F
R430	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R431	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R432	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R433	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R434	△.1-217-151-00	RES, METAL PLATE 0.22				
R435	△.1-217-151-00	RES, METAL PLATE 0.22				
R436	△.1-217-151-00	RES, METAL PLATE 0.22				
R437	△.1-217-151-00	RES, METAL PLATE 0.22				
R438	△.1-247-692-11	CARBON	22	5%	1/4W	F
R439	△.1-247-692-11	CARBON	22	5%	1/4W	F
R440	△.1-247-717-11	CARBON	2.2K	5%	1/4W	F
R441	1-249-460-11	CARBON	15K	5%	1/4W	
R442	△.1-219-002-11	FUSIBLE	15	5%	1/2W	
R443	1-247-727-11	CARBON	10	5%	1/2W	

Ref. No.	Part No.	Description	Value	Unit	Value	Unit
R444	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R445	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R446	1-247-752-11	CARBON	1K	5%	1/2W	
R447	1-249-478-11	CARBON	2.2	5%	1/2W	
R448	1-249-478-11	CARBON	2.2	5%	1/2W	
R449	△.1-219-002-11	FUSIBLE	15	5%	1/2W	
R450	1-247-752-11	CARBON	1K	5%	1/2W	
R451	1-259-503-11	CARBON	4.7M	5%	1/2W	
R452	1-247-713-11	CARBON	1K	5%	1/4W	
R453	1-247-692-11	CARBON	22	5%	1/4W	
R454	1-247-692-11	CARBON	22	5%	1/4W	
R455	1-247-717-11	CARBON	2.2K	5%	1/4W	
R456	1-247-704-11	CARBON	220	5%	1/4W	
R457	1-247-700-11	CARBON	100	5%	1/4W	
R458	1-247-703-11	CARBON	180	5%	1/4W	
R459	1-247-704-11	CARBON	220	5%	1/4W	
R460	1-246-545-00	CARBON	1M	5%	1/4W	
R462	△.1-219-010-11	FUSIBLE	33	5%	1/2W	
R463	1-249-490-11	CARBON	27K	5%	1/2W	
R464	1-247-704-11	CARBON	220	5%	1/4W	
R465	1-246-531-00	CARBON	270K	5%	1/4W	
R466	1-247-740-11	CARBON	120	5%	1/2W	
R467	1-249-486-11	CARBON	12K	5%	1/2W	
R468	1-247-764-11	CARBON	10K	5%	1/2W	
R469	1-259-503-11	CARBON	4.7M	5%	1/2W	
R470	1-247-715-11	CARBON	1.5K	5%	1/4W	
R471	1-247-721-11	CARBON	4.7K	5%	1/4W	
R472	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R473	1-247-717-11	CARBON	2.2K	5%	1/4W	
R474	1-247-718-11	CARBON	2.7K	5%	1/4W	
R475	1-247-711-11	CARBON	680	5%	1/4W	
R476	△.1-212-998-00	FUSIBLE	470	5%	1/2W	F
R477	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R478	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R479	△.1-212-982-00	FUSIBLE	100	5%	1/2W	F
R480	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R481	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R482	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R483	△.1-217-997-11	FUSIBLE	10	5%	1/2W	
R484	△.1-217-151-00	RES, METAL PLATE 0.22				
R485	△.1-217-151-00	RES, METAL PLATE 0.22				
R486	△.1-217-151-00	RES, METAL PLATE 0.22				
R487	△.1-217-151-00	RES, METAL PLATE 0.22				
R488	△.1-247-692-11	CARBON	22	5%	1/4W	F
R489	△.1-247-692-11	CARBON	22	5%	1/4W	F
R490	△.1-247-717-11	CARBON	2.2K	5%	1/4W	F
R491	1-249-460-11	CARBON	15K	5%	1/4W	
R492	△.1-219-002-11	FUSIBLE	15	5%	1/2W	
R493	1-247-727-11	CARBON	10	5%	1/2W	
R494	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R495	△.1-219-022-11	FUSIBLE	100	5%	1/2W	
R496	1-247-752-11	CARBON	1K	5%	1/2W	
R497	1-249-478-11	CARBON	2.2	5%	1/2W	
R498	1-249-478-11	CARBON	2.2	5%	1/2W	
R499	△.1-219-002-11	FUSIBLE	15	5%	1/2W	
R500	1-247-752-11	CARBON	1K	5%	1/2W	
R501	1-249-469-11	CARBON	100K	5%	1/4W	

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Ref.No.	Part No.	Description			
R502	1-249-469-11	CARBON	100K	5%	1/4W
R551	1-249-469-11	CARBON	100K	5%	1/4W
R552	1-249-469-11	CARBON	100K	5%	1/4W
R601	1-247-891-00	CARBON	330K	5%	1/4W
R602	1-247-887-00	CARBON	220K	5%	1/4W
R603	1-247-725-11	CARBON	10K	5%	1/4W
R604	1-249-461-11	CARBON	18K	5%	1/4W
R605	1-246-530-00	CARBON	240K	5%	1/4W
R606	1-247-725-11	CARBON	10K	5%	1/4W
R607	1-247-717-11	CARBON	2.2K	5%	1/4W
R608	1-249-465-11	CARBON	47K	5%	1/4W
R609	1-249-465-11	CARBON	47K	5%	1/4W
R610	1-249-462-11	CARBON	22K	5%	1/4W
R611	1-247-750-11	CARBON	680	5%	1/2W
R612	1-247-717-11	CARBON	2.2K	5%	1/4W
R613	1-247-754-11	CARBON	1.5K	5%	1/2W
R614	1-247-754-11	CARBON	1.5K	5%	1/2W
R616	1-247-693-11	CARBON	27	5%	1/4W
R617	Δ.1-249-489-11	CARBON	22K	5%	1/2W F
R618	1-247-749-11	CARBON	560	5%	1/2W
R619	1-247-749-11	CARBON	560	5%	1/2W
R620	1-247-749-11	CARBON	560	5%	1/2W
R621	1-247-749-11	CARBON	560	5%	1/2W
R622	1-247-749-11	CARBON	560	5%	1/2W
R623	1-247-749-11	CARBON	560	5%	1/2W
R624	1-247-749-11	CARBON	560	5%	1/2W
R625	1-247-749-11	CARBON	560	5%	1/2W
R626	1-247-749-11	CARBON	560	5%	1/2W
R627	1-247-749-11	CARBON	560	5%	1/2W
R628	1-247-749-11	CARBON	560	5%	1/2W
R630	1-247-727-11	(WG)...CARBON	10	5%	1/2W
R631	1-247-255-00	CARBON	4.3K	5%	1/2W
R632	1-247-255-00	CARBON	4.3K	5%	1/2W
R633A	1-247-721-11	CARBON	4.7K	5%	1/4W
R633	1-247-739-11	CARBON	100	5%	1/2W
R650	1-247-138-00	CARBON	2K	5%	1/4W
R651	1-247-891-00	CARBON	330K	5%	1/4W
R652	1-247-721-11	CARBON	4.7K	5%	1/4W
R653	Δ.1-212-934-00	FUSIBLE	1	5%	1/2W F
R680	1-247-727-11	(WG)...CARBON	10	5%	1/2W
R681	1-247-255-00	CARBON	4.3K	5%	1/2W
R682	1-247-255-00	CARBON	4.3K	5%	1/2W
R683	1-247-739-11	CARBON	100	5%	1/2W
R701	Δ.1-213-086-00	FUSIBLE	120	5%	1W F
R751	Δ.1-213-086-00	FUSIBLE	120	5%	1W F
RT401	1-237-873-11	RES, ADJ, CARBON	100		
RT402	1-237-455-11	RES, ADJ, CARBON	500		
RT451	1-237-873-11	RES, ADJ, CARBON	100		
RT452	1-237-455-11	RES, ADJ, CARBON	500		
RV301	1-238-416-11	RES, VAR, CARBON	150K/150K (BALANCE)		
RV302	1-238-418-11	RES, VAR, CAOBPN	250K/250K (TREBLE)		
RV303	1-238-417-11	RES, VAR, CARBON	25K/500K (BASS)		
RV304	1-237-175-11	RES, VAR, CARBON	120K/120K (ATTENUATOR)		
RY601	1-515-614-11	RELAY			
RY602	1-515-356-00	RELAY			
RY603	1-515-356-00	RELAY			

Ref.No.	Part No.	Description
S101	1-554-879-11	SWITCH, SLIDE (INPUT SELECTOR)
S102	1-570-593-11	SWITCH, SLIDE (REMOTE TYPE) (INPUT SELECTOR)
S103	1-570-076-11	SWITCH, SLIDE (REMOTE TYPE) (REC OUT SELECTOR)
S201	1-554-019-21	SWITCH, SLIDE (REMOTE TYPE) (CARTRIDGE LOAD)
S301	1-571-773-11	SWITCH, PUSH (2 KEY)(MUTING -20dB)
S302	1-571-773-11	SWITCH, PUSH (2 KEY)(SUBSONIC)
S303	1-571-772-11	SWITCH, PUSH (3 KEY)(TONE)
S304	1-571-774-11	SWITCH, PUSH (1 KEY)(SOURCE DIRECT)
S305	1-571-772-11	SWITCH, PUSH (3 KEY)(TURNOVER)
S306	1-571-772-11	SWITCH, PUSH (3 KEY)(TURNOVER)
S501	1-571-775-11	SWITCH, ROTARY (MODE)
S601	1-571-776-11	SWITCH, ROTARY (SPEAKERS)
S801	Δ.1-554-538-00	SWITCH, PUSH (AC POWER)(1 KEY)
T1	Δ.1-449-652-11	(AEP)...TRANSFORMER, POWER
T1	Δ.1-449-653-11	(WG)...TRANSFORMER, POWER
T1	Δ.1-449-654-11	(E)...TRANSFORMER, POWER
T1	Δ.1-449-655-11	(UK)...TRANSFORMER, POWER
TM801	1-536-767-41	TERMINAL BOARD, SPEAKER (SPEAKER A)
TM802	1-536-767-41	TERMINAL BOARD, SPEAKER (SPEAKER B)
VS801	Δ.1-526-576-51	(E)...SELECTOR, POWER VOLTAGE

ACCESSORY & PACKING MATERIAL

3-786-976-11	(UK,E)...MANUAL, INSTRUCTION
3-786-976-41	(AEP,WG)...MANUAL, INSTRUCTION
4-847-802-00	(EXCEPT UK)...SCREW
4-915-880-01	SHEET, PROTECTION
*4-923-840-01	(E)...INDIVIDUAL CARTON
*4-923-840-11	(AEP,WG)...INDIVIDUAL CARTON
*4-929-262-01	(UK)...INDIVIDUAL CARTON
*4-923-860-01	(AEP,WG,E)...CUSHION
*4-929-219-11	(UK)...CUSHION

Note: The components identified by mark **Δ** or dotted line with mark **Δ** are critical for safety. Replace only with part number specified.